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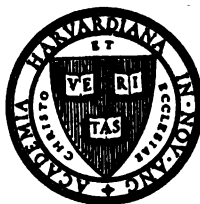
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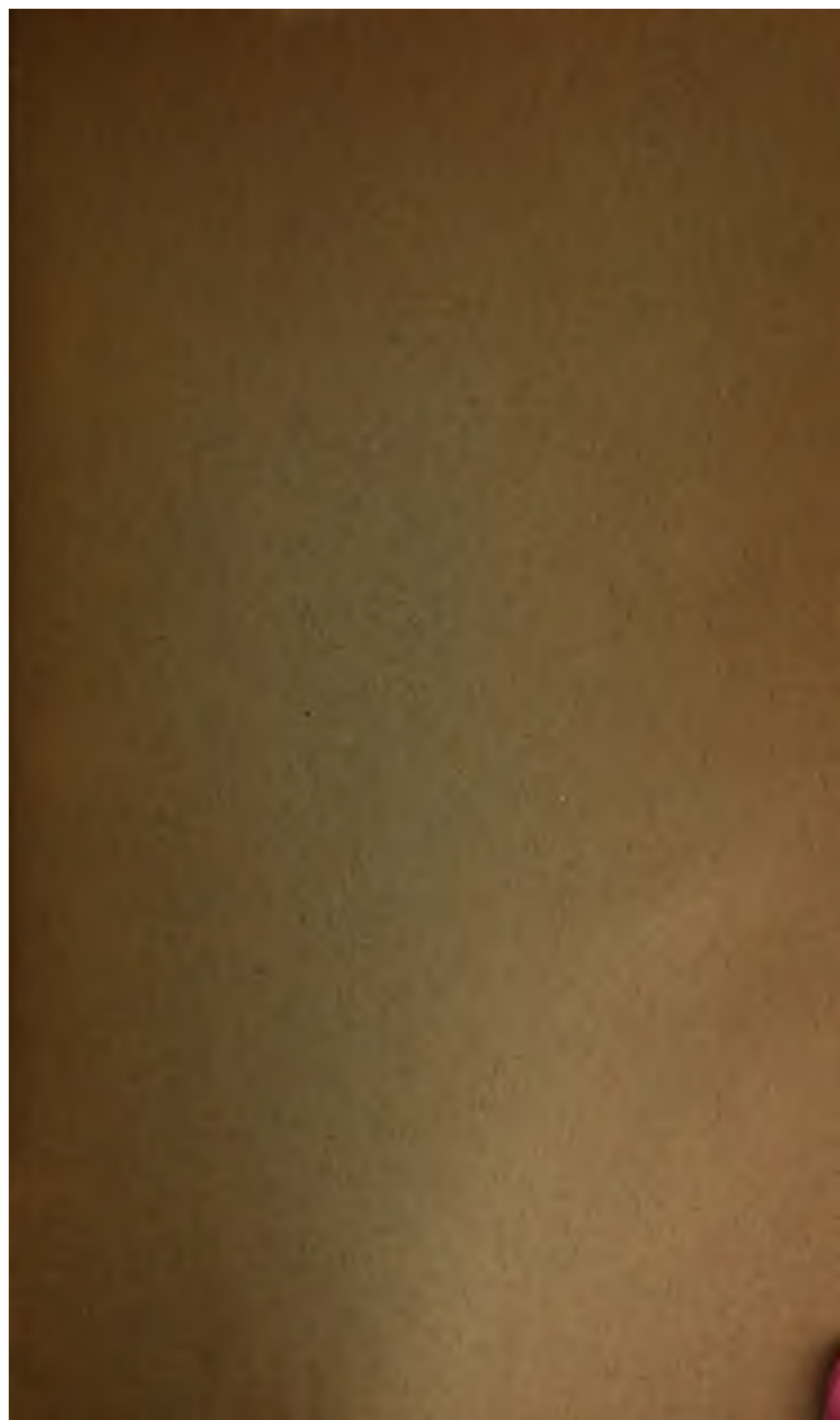
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THE
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OF THE
CONNECTICUT MEDICAL SOCIETY.

SECOND SERIES—VOLUME II;
BEING NUMBERS I—IV, FOR 1864—1867.

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Second Series, Vol. II, No. 1.

MEDICAL COMMUNICATIONS,

WITH THE

PROCEEDINGS

OF THE

Seventy-second Annual Convention

OF THE

CONNECTICUT MEDICAL SOCIETY,

HELD AT

New Haven, May 25th and 26th, 1864.

NEW HAVEN:

PRINTED BY  MOREHOUSE & TAYLOR, 221 STATE ST.

1864.

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PROCEEDINGS.

The *Seventy-second* Annual Convention of the Connecticut Medical Society, was held in New Haven, May 25th and 26th, 1864.

The Convention was called to order at 11 A. M., May 26th, by the President, E. K. Hunt, M. D. The Secretary, L. J. Sanford, M. D., being absent in Europe, Dr. M. C. White was chosen Secretary pro tem. The list of Fellows returned by the Clerks of the several County Meetings having been read, Drs. S. W. Rockwell and H. Pierpont were appointed a Committee on Credentials.

Wm. Pierson, M. D., and Arthur Ward, M. D., presented credentials as Delegates from the Medical Society of New Jersey, and they were introduced to the Convention.

A. J. Fuller, M. D., was received and introduced as a Delegate from the Maine Medical Association.

H. K. Storer, M. D. of Boston, presented credentials and was introduced as a delegate from the Medical Society of Massachusetts.

H. Lassing, M. D. was introduced as a reporter for the New York Medical Independent, and on motion, he was invited to a seat in the Convention.

Dr. Rockwell, chairman of the Committee on Credentials, reported the following list of Fellows for the present year, which was approved by the Convention, viz :

FELLOWS.

HARTFORD COUNTY.

G. W. Russell, M. D.	Geo. A. Moody, M. D.
A. W. Barrows, "	B. N. Comings, "
S. W. Rockwell, "	

NEW HAVEN COUNTY.

Gideon L. Platt, M. D.	†S. Punderson, M. D.
Moses C. White, "	Henry Pierpont, "
Joel Canfield, "	

† Absent.

NEW LONDON COUNTY.

Ashbel Woodward, M. D.	†A. B. Haile, M. D.
Geo. E. Palmer, “	†Orrin E. Miner, “
†A. M. Tribou, “	

FAIRFIELD COUNTY.

†David H. Nash, M. D.	Ira Gregory, M. D.
M. B. Pardee, “	Samuel S. Noyes, “
†Robert Hubbard, “	

LITCHFIELD COUNTY.

J. G. Beckwith, M. D.	John W. Welch, M. D.
Henry Davis, “	Henry M. Knight, “
†James W. Phelps, “	

MIDDLESEX COUNTY.

George W. Burke, M. D.	Elisha B. Nye, M. D.
S. W. Turner, “	

TOLLAND COUNTY.

Charles F. Sumner, M. D.	†C. B. Newton, M. D.
G. H. Preston, “	

WINDHAM COUNTY.

D. B. Plimpton, M. D.	†Edwin A. Hill, M. D.
John H. Simmons, “	†Wm. A. Lewis, “
†Joseph Palmer, “	

A letter from P. A. Jewett, M. D., Surgeon in Charge of Knight U. S. General Hospital, was read, inviting the Convention to visit the Hospital :

Voted to accept the invitation.

Dr. White presented a communication from the New Haven Medical Association, signed by the Secretary, C. W. Sheffrey, M. D., inviting the Convention to attend a social gathering of the City Association at the Tremont House at 8½ P. M.

Voted to accept the invitation.

The delivery of the President's Address was deferred until Thursday, the 26th.

The following gentlemen were then elected Officers of the Convention for the ensuing year, viz :

EBENEZER K. HUNT, M. D., PRESIDENT.

NATHAN B. IVES, M. D., VICE-PRESIDENT.

JAMES C. JACKSON, M. D., TREASURER.

MOSES C. WHITE, M. D., SECRETARY.

The President then appointed, as a Committee on Unfinished Business, Drs. B. N. Comings, Joel Canfield and Geo. E. Palmer.

The President also appointed, as a Committee on Communications and Resolves from Counties, Drs. G. L. Platt, M. B. Pardee and J. G. Beckwith.

Dr. Beckwith presented the action of the Litchfield County Meeting in regard to Dr. Salisbury, which was referred to the above Committee.

The action of the several County Meetings on the Burke Resolutions of last year, (see Proceedings of 1863, page 88) was also referred to the Committee on Communications, &c., from Counties.

Dr. Lassell exhibited a Uterine Scarificator sent by Dr. Battels. Prof. Storer remarked that the instrument would be very useful in skillful hands, but that in other hands it might do much injury.

On motion of Dr. Geo. E. Palmer seconded by Dr. J. G. Beckwith, it was resolved that the greetings of this Convention be sent through Dr. Storer, by telegraph, to the Massachusetts Medical Society, now in session at Boston.

The President then appointed the following Committees, viz :

On Honorary Degrees and Honorary Membership :

Drs. Ashbel Woodward, M. B. Pardee, and J. G. Beckwith.

On Candidates for a Gratuitous Course of Lectures :

Drs. S. W. Turner, G. H. Preston, and D. B. Plimpton.

To nominate Dissertator and Alternate :

Drs. G. L. Platt, G. W. Burke, and G. H. Preston.

To-nominate Delegates to Meeting of American Medical Association, for 1865 :

Drs. John M. Welch, G. W. Burke, and C. F. Sumner.

Adjourned to 2 o'clock P. M.

Afternoon Session.

Dr. Carnrick's Solution of Protoxide of Iron was exhibited to the Convention.

The Treasurer made a report of the finances of the Society for the past year, which was accepted and referred to Drs. G. W. Russell and G. H. Preston as Auditing Committee, who reported that they found the Treasurer's Report correct. Report accepted.

The following is a summary of the Treasurer's Report :

RECEIPTS.

May 28, 1863, Balance in Treasury,	-	\$	4.98	
Russell Prize Fund,	-	-	-	50.00
Received from Clerks and Ex-clerks, from				
May 28, 1863, to May 24, 1864,	-	273.08	\$328.06	
Disbursements from May 28, 1863, to				
May 24, 1864,	-	-	-	\$303.79
May 24, 1864, Balance in Treasury,	-	-	\$24.27	
Due from Clerks,	-	-	\$1863.55	
Deduct one half for abatements,				
commissions, bad debts, &c.,	-	931.77½	931.77½	
Total of cash and due from clerks,	-	-	956.04½	
The Society owes for outstanding debentures,	-	-	448.62½	
Balance in favor of the Society,	-	-	\$507.42	
" " " " last year,			\$259.09	
Excess of balance over that of last year,	-		\$248.33	

The vacancies on the Standing Committees were filled by general ballot as follows, viz:

G. H. Preston, M. D.,	}	Committee on Examination.
Wm. B. DeForest, M. D.,		
A. W. Barrows, M. D.,	}	Committee to nominate Physician to Retreat for Insane.
J. G. Beckwith, M. D.,		
S. W. Rockwell, M. D.,	}	Committee to nominate Professors in Medical Institution of Yale College.
Chas. F. Sumner, M. D.,		
A. W. Barrows, M. D.,	}	Committee of Publication.
G. W. Burke, M. D.,		
Henry Pierpont, M. D.,		Committee on Registration,

The Committee on County Resolutions reported that the Burke Resolutions, which were by vote of the last Convention submitted

to the several County Meetings, having been approved by a majority of the Counties, have thus become the law of the State Society, viz :

Whereas, The custom of this Society in regard to debentures and taxes was, at the session in 1861, materially changed, and whereas many good members who had faithfully complied with the requirements of the Society until they had reached the age at which according to our By-Laws they were exempt from taxation, now feel aggrieved at being again taxed without any corresponding equivalent, therefore,

Resolved, I. That the payment of the tax of two dollars, be optional with all members over *Sixty* years of age.

Resolved, II. That the practice of furnishing a dinner from the funds of this Society is inconsistent with the true interests of the Profession, and ought to be discontinued.

Resolved, III. That the *surplus* of income of the Society, after paying current expenses, be devoted to the purchase of valuable medical publications, to be distributed equally to all members *not in arrears*.

Resolved, IV. That the Clerks of the several County Meetings be requested hereafter, in the annual returns to specify the *names* of paying members.

Resolved, V. That the taxes of the Fellows in attendance at the annual State Convention be abated, in place of the old debenture system.

Resolved, VI. That hereafter the meetings of the Society be held as formerly,—alternately in Hartford and New Haven.

The Russell Prize Committee made a report, which was accepted and the Committee were authorized to continue the offer of the prize for another year. [See Appendix C.]

The State Medical Board made a report, which was accepted, and ordered to be printed, [See Appendix G.]

The Committee on Examination made a report, which was accepted and ordered to be printed. [See Appendix A.]

The Committee on Communications and Resolutions from Counties made a report recommending that the Resolution of Litchfield County Meeting be indorsed by the Convention and published in the Proceedings. The report was accepted and the resolutions were adopted as follows, viz.:

Resolved. That in the Military Trial of Dr. Samuel T. Salisbury, late Surgeon for the Board of Enrollment for the 4th Congressional District, nothing was elicited which tends in any manner to diminish our confidence in his professional integrity.

Resolved, That believing him to have been "more sinned against than sinning," we give him our cordial sympathy under his recent troubles.

On motion of Dr. Burke, seconded by Dr. Beckwith,

Resolved, That a Committee of three be appointed to prepare a Circular containing a detailed statement of the advantages of the new plan of conducting the Society, and the results which may be expected to follow a cordial coöperation in its execution, and that this be sent to all the members of this Society as soon as possible, with a request that they will respond to the same.

Drs. Geo. W. Burke, Ashbel Woodward and B. N. Comings were appointed the Committee to carry out the above resolution.

Dr. S. W. Turner, Chairman of Committee to nominate Candidates for a Gratuitous Course of Lectures in Yale Medical College, presented the report of the Committee, recommending the following list, viz :

RALPH P. THATCHER, of Hartford County.

C. W. BULL, of New Haven County.

GEORGE LEWIS, of Litchfield County.

*SETH HILL, of Fairfield County.

*DANIEL T. BROMLEY, of Windham County.

The Committee of Publication made a report, in regard to communications received, and the arrangement for literary exercises tomorrow, which was accepted.

On motion of Dr. Canfield, it was *Voted*, That a Committee of one from each County, be appointed by the President, to consider the subject of delinquency of such members of the State Society as have neglected to pay their taxes ; said Committee to report to this Convention such action as in their judgment will best prevent such delinquency hereafter. Drs. J. Canfield, G. H. Preston, J. G. Beckwith, A. Woodward, M. B. Pardee, J. H. Simmons, E. B. Nye and A. W. Barrows, were appointed said Committee.

*If he has complied with the necessary requisitions.

On motion, the resolutions of the Tolland County Meeting on the above subject, were referred to the same Committee.

On motion of Dr. Geo. W. Burke, the following was adopted :

Whereas, Doubts have existed as to the construction of membership after absence from this State.

Resolved, That the privileges and obligations of membership revert to a regular physician on returning to this State.

Proposed by Dr. M. C. White, seconded by Dr. J. G. Beckwith :

Whereas, Large contributions have recently been made to Yale College both for the Academical and Scientific Departments,

Resolved, That a Committee of three be appointed to inquire what can be done to secure donations to the Medical Department of Yale College.

Adopted and referred to a Committee consisting of Drs. M. C. White, Geo. E. Palmer and S. W. Turner.

The following persons were then elected Honorary Members of the State Society, viz.:

Samuel H. Pennington, M. D., of Newark, N. J.

Frederick N. Bennett, M. D., of Orange, N. J.

Thomas W. Blatchford, M. D., of Troy, N. Y.

Thomas C. Finnell, M. D., of New York City.

N. C. Husted, M. D., of New York City,

Jacob T. Whittemore, M. D., of Chester, N. H.

The Committee to nominate delegates to the Meeting of the American Medical Association, for 1865, presented the names of E. K. Hunt, M. D., N. B. Ives, M. D., J. C. Jackson, M. D., and M. C. White, M. D. The report was accepted and the nominees were appointed.

The Committee to nominate Dissertator for the ensuing year, recommended John Ellis Blake, M. D., of Middletown for Dissertator and C. L. Ives, M.D., of New Haven as Alternate. The nominations were confirmed.

On motion it was voted that a tax of *two dollars* be laid on each member of the State Society, payable June 1, 1864.

Drs. A. Woodward, J. G. Beckwith and A. W. Barrows were appointed a Committee to nominate delegates to other societies.

Voted, That the Secretary and Treasurer be authorized to publish at their discretion, not exceeding 500 copies of the Proceedings, for the use of the members of the Society.

Adjourned to meet at the same place at 8½ o'clock Thursday morning.

Thursday Morning, May 26, 1863.

The Convention reassembled pursuant to adjournment, the President, Dr. E. K. Hunt, in the Chair.

The Committee on Honorary Degrees and Honorary Membership reported, No candidate for Honorary Degree.

For Honorary Membership they reported the following :—

John Green, M. D., of Worcester, Mass.

Thomas Sanborn, M. D., of Newport, N. H.

William Pierson, M. D., of Orange, N. J.

Arthur Ward, M. D., of Bellville, N. J.

Hiram Corlies, M. D., of Washington, N. Y.

The report was accepted and the names reported were ordered to be placed on the list for election next year.

The Committee to nominate delegates to other State Societies, recommended the appointment of the following :—

To the Medical Society of Maine, Joseph H. Olmsted, M. D., and Benjamin Catlin, M. D.

To the Medical Society of New Hampshire, Ashbel Woodward, M. D., Worthington Hooker, M. D., and James C. Jackson, M. D.

To the Medical Society of Massachusetts, S. S. Noyes, M. D., and Ralph Deming, M. D.

To the Medical Society of Rhode Island, Geo. E. Palmer, M. D., and W. H. Cogswell, M. D.

To the Medical Society of New York, J. G. Beckwith, M. D., and S. W. Turner, M. D.

To the Medical Society of New Jersey, Charles A. Lindsley, M. D., and Rufus Blateman, M. D.

On motion, the gentlemen nominated were unanimously elected. On further motion it was, *Resolved*, That each delegate be authorized to appoint a substitute in case he does not attend the meetings.

Dr. J. G. Beckwith, who was appointed by the last Convention as a delegate to attend the meeting of the New York State Medical Society, read a report, which was accepted and ordered to be printed. [See Appendix, D.]

Dr. Geo. E. Palmer, of the Committee on Donations to Yale Medical College, made a report, which was adopted, [See Appendix, E.]

and the Committee to nominate Professors to Yale College were appointed to carry out the recommendations of the Report above mentioned.

Dr. J. G. Beckwith presented the report of the Committee on the means of relieving the Treasury and improving the Financial condition of the Society. The Report was adopted and the Treasurer was empowered to act accordingly. [See Appendix, F.]

Dr. H. M. Knight presented the Report of the Committee to Nominate Professors in Yale College, which was accepted and adopted. [See Appendix B.]

On motion of Dr. Beckwith it was,

Resolved, That it shall be the duty of the Fellows of the several counties to present to the State Convention short obituary sketches of deceased members, which shall be revised, amended or condensed by the Committee of Publication, as they deem expedient.

P. M. Hastings, M. D. read the Annual Dissertation. Subject, *Scarlatina*.

On motion of Dr. Ashbel Woodward, the thanks of the Convention were voted to Dr. Hastings for his able Dissertation, and a copy was requested for publication.

Dr. Beckwith offered the following Resolution, viz :

Resolved, That any member of the Connecticut Medical Society who shall have been in the annual Convention three sessions, shall thereafter be eligible to election as a permanent member of the Convention, and entitled to vote in its proceedings.

Dr. Knight suggested that no action of this kind would be legal under the present charter of the State Society. The resolution was referred to a committee consisting of Drs. J. G. Beckwith, A. W. Barrows and G. W. Burke.

Dr. R. W. Matthewson of Durham read an interesting paper on "Water Treatment in Scarlet Fever," for which he received the thanks of the Society. The paper was referred to the Committee of Publication.

The President delivered the Annual Address; subject, "Inert Practice in Disease."

The thanks of the Convention were voted to the President for his able and interesting Address, and the Committee were directed to publish the Address in the Proceedings.

A report of a case of Schirrus of the Testis, presented by Dr. G. W. Burke, of Middletown, was referred to the Committee on Publication.

An Essay on Sulphuric Ether in Surgical Operations, by Dr. John E. Blake of Middletown, read before the Middlesex County Meeting and by them recommended for publication, was presented to the Convention and referred to the Committee of Publication.

Obituary notices of

Dewitt C. Lathrop of Norwich,
Asa L. Spaulding, M. D. of Enfield,
Alden Skinner, M. D. of Vernon,
A. M. Huxley, M. D. of Goshen, and
Norman Lyman, M. D.,

were presented and referred to the Committee of Publication.

On motion of Dr. White it was

Resolved, That the Committee of publication be authorized to revise the Order of Business of the Convention.

It was also *Resolved*, That the Committee of Arrangements for next year, be directed to provide for the delivery of the President's Address in the afternoon or evening, in the Representatives' Hall, or in some other public place,

On motion of Dr. Beckwith,

Resolved, That the thanks of the Convention are hereby tendered to the New Haven Medical Association for the liberal social entertainment given by them to the Convention, last evening, at the Tremont House.

On motion, the Convention adjourned to meet in Hartford at the usual time next year.

Attest,

M. C. WHITE, *Secretary*.

OFFICERS OF THE SOCIETY.

FOR 1864-65.

PRESIDENT.

EBENEZER K. HUNT, M. D., OF HARTFORD.

VICE-PRESIDENT.

NATHAN B. IVES, M. D., OF NEW HAVEN.

TREASURER.

JAMES C. JACKSON, M. D., OF HARTFORD.

SECRETARY.

MOSES C. WHITE, M. D., OF NEW HAVEN.

STANDING COMMITTEES.

Committee on Examination.

EBENEZER K. HUNT, M. D., *ex officio*.

LEWIS BARNES, M. D.

D. P. FRANCIS, M. D.

SIDNEY W. ROCKWELL, M. D.

GILBERT H. PRESTON, M. D.

WM. B. D^SFOREST, M. D.

Committee to Nominate Physician to Retreat for the Insane.

JOHN E. BLAKE, M. D.

CALVIN B. BROMLEY, M. D.

WILLIAM SCOTT, M. D.

A. W. BARROWS, M. D.

J. G. BECKWITH, M. D.

*Committee to Nominate Professors in the Medical Institution of
Yale College.*

RALPH DEMING, M. D.
GIDEON L. PLATT, M. D.
DAVID A. TYLER, M. D.
SIDNEY W. ROCKWELL, M. D.
CHARLES F. SUMNER, M. D.

Committee of Publication.

MOSES C. WHITE, M. D., *ex officio*.
CHARLES L. IVES, M. D.
FRANCIS L. DICKINSON, M. D.
A. W. BARROWS, M. D.
G. W. BURKE, M. D.

Committee on Registration.

GEO. W. BURKE, M. D.
LUCIAN S. WILCOX, M. D.
HENRY PIERPONT, M. D.

MEMBERS OF THE SOCIETY.

HONORARY MEMBERS.

*FELIX PASCALIS, - - -	New York City.
JAMES JACKSON, - - -	Boston, Mass.
*JOHN C. WARREN, - - -	Boston, Mass.
*SAMUEL L. MITCHELL, - - -	New York City.
*DAVID HOSACK, - - -	New York City.
*WRIGHT POST, - - -	New York City.
BENJAMIN SILLIMAN, - - -	New Haven.
*GEORGE M'CLELLAN, - - -	Philadelphia, Pa.
*JOHN MACKIE, - - -	Providence, R. I.
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*THEODRIC ROMEYN BECK, - - -	Albany, N. Y.
*JAMES THACHER, - - -	Plymouth, Mass.
EDWARD DELAFIELD, - - -	New York City.
JOHN DELAMATER, - - -	Cleveland, Ohio.
*WILLIAM P. DEWEES, - - -	Philadelphia, Pa.
*JOSEPH WHITE, - - -	Cherry Valley, N. Y.
JACOB BIGELOW, - - -	Boston, Mass.
WALTER CHANNING, - - -	Boston, Mass.
*PHILIP SYNG PHYSIC, - - -	Philadelphia, Pa.
*LEWIS HEERMAN, - - -	U. S. Navy.
*DANIEL DRAKE, - - -	Cincinnati, Ohio.
*HENRY MITCHELL, - - -	Norwich, N. Y.
NATHAN RYNO SMITH, - - -	Baltimore, Md.
VALENTINE MOTT, - - -	New York City.
*SAMUEL WHITE, - - -	Hudson, N. Y.
REUBEN D. MUSSEY, - - -	Cincinnati, Ohio.
*WILLIAM TULLY, - - -	Springfield, Mass.
RICHMOND BROWNELL, - - -	Providence, R. I.

*Deceased.

*WILLIAM BEAUMONT, -	-	St. Louis, Mo.
SAMUEL HENRY DICKSON, -	-	Philadelphia, Pa.
*SAMUEL B. WOODWARD, -	-	Northampton, Mass.
*JOHN STEARNS, -	-	New York City.
*STEPHEN W. WILLIAMS, -	-	Deerfield, Mass.
*HENRY GREEN, -	-	Albany, N. Y.
*GEORGE FROST, -	-	Springfield, Mass.
WILLARD PARKER, -	-	New York City.
*BENAJAH TICKNOR, -	-	U. S. Navy.
ALDEN MARCH, -	-	Albany, N. Y.
*AMOS TWITCHELL, -	-	Keene, N. H.
CHARLES A. LEE, -	-	New York City.
*DAVID S. C. H. SMITH, -	-	Providence, R. I.
*JAMES M. SMITH, -	-	Springfield, Mass.
HENRY D. BULKLEY, -	-	New York City.
J. MARION SYMS, -	-	New York City.
*JOHN WATSON, -	-	New York City.
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ROBERT WATTS, -	-	New York City.
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O. WENDELL HOLMES, -	-	Boston, Mass.
JOSEPH SARGENT, -	-	Worcester, Mass.
MASON F. COGSWELL, -	-	Albany, N. Y.
FOSTER HOOPER, -	-	Fall River, Mass.
THOMAS C. BRINSMADE, -	-	Troy, N. Y.
GEORGE CHANDLER, -	-	Worcester, Mass.
GILMAN KIMBALL, -	-	Lowell, Mass.
JAMES McNAUGHTON, -	-	Albany, N. Y.
USHER PARSONS, -	-	Providence, R. I.
S. D. WILLARD, -	-	Albany, N. Y.
JOHN WARE, -	-	Boston, Mass.
EBENEZER ALDEN, -	-	Randolph, Mass.
B. FORDYCE BARKER, -	-	New York City.
JOHN G. ADAMS, -	-	New York City.
JARED LINSLEY, -	-	New York City.
A. J. FULLER, -	-	Bath, Me.
SAMUEL H. PENNINGTON, -	-	Newark, N. J.

*Deceased.

FREDERICK N. BENNETT,	-	Orange, N. J.
THOMAS W. BLATCHFORD,	-	Troy, N. Y.
THOMAS C. FINNELL,	- -	New York City.
N. C. HUSTED,	- - -	New York City.
JACOB P. WHITTEMORE,	- -	Chester, N. H.

Candidates for Honorary Membership.

JOHN GREEN, M. D.	- -	Worcester, Mass.
THOMAS SANBORN, M. D.	- -	Newport, N. H.
WILLIAM PIERSON, M. D.	-	Orange, N. J.
ARTHUR WARD, M. D.	- -	Belleville, N. J.
HIRAM CORLIES, M. D.	- -	Washington, N. Y.

ORDINARY MEMBERS.

—♦♦—
The names of those who have been Presidents are in Capitals.
 —♦♦—

HARTFORD COUNTY.

JUSTUS D. WILCOX, M. D., Chairman.

GEORGE A. MOODY, M. D., Clerk, pro tem.

HARTFORD, Henry Holmes. S. B. Beresford, G. B. Hawley, G. W. Russell, P. W. Ellsworth, E. K. HUNT, J. S. Butler, J. C. Jackson, A. W. Barrows, Thomas Miner, H. Gridley, William Porter, John F. Wells, William R. Brownell, P. M. Hastings, Edward Brinley, George Clary, W. H. Tremaine, Lucian S. Wilcox, Henry S. Stearns, Samuel H. Hall, Adolph Kessler.	GRANBY, West Granby, Justus D. Wilcox.
BERLIN, E. Brandagee.	North Granby, Francis F. Allen.
BLOOMFIELD, Henry Gray.	East Granby, Chester Hamlin.
BRISTOL, Roswell Hawley.	MANCHESTER, Wm. Scott.
BURLINGTON, William Elton, 2d.	NEW BRITAIN, Samuel Hart, E. D. Babcock, B. N. Comings, S. W. Hart, Burritt B. North.
CANTON, Collinsville, R. H. Tiffany.	ROCKY HILL, R. W. Griswold.
EAST HARTFORD, S. L. Child, H. K. Olmsted.	SIMSBURY, Tariffville, G. W. Sanford.
ENFIELD, J. P. Converse.	Westogue, R. A. White.
Thompsonville, L. S. Pease.	SOUTHINGTON, Julius S. Barnes, N. H. Byington, F. A. Hart.
FARMINGTON, Asahel Thompson, Frank Wheeler.	SOUTH WINDSOR, H. Goodrich.
Plainville, G. A. Moody.	EAST WINDSOR, East Windsor Hill, Sidney W. Rockwell, William Wood.
GLASTENBURY, H. Clinton Bunce.	Broad Brook, Marcus L. Fisk.
South Glastenbury, C. F. Hammond.	Warehouse Point, Joseph Olmsted.
Eastbury, Sabin Stocking.	SUFFIELD, Aretus Rising, M. T. Newton.
	West Suffield, O. W. Kellogg.
	WETHERSFIELD, E. F. Cook, A. S. Warner, R. Fox.
	WEST HARTFORD, Edward Brace.
	WINDSOR, A. Morrison, S. A. Wilson.
	WINDSOR LOOKS, Samuel W. Skinner, Levi Jewett.

NEW HAVEN COUNTY.

WM. B. DeFOREST, M. D., Chairman.

H. W. E. MATTHEWS, M. D., Clerk.

NEW HAVEN, Jonathan Knight, Samuel	Birmingham, Ambrose Beardsley.
Punderson, A. S. Monson, Nathan B.	GUILFORD, Joel Canfield, Alvan Tal-
Ives, E. H. Bishop, Levi Ives, P. A.	cott.
Jewett, David L. Daggett, George O.	HAMDEN, Edwin D. Swift.
Sumner, David A. Tyler, Henry Bron-	MADISON, D. M. Webb.
son, E. A. Park, S. G. Hubbard, W.	MERIDEN, West Meriden, B. H. CAT-
J. Whiting, H. W. E. Matthews, C. A.	LIN, E. W. Hatch, Asa H. Churchill.
Lindsley, Worthington Hooker, T. H.	MILFORD, Hull Allen, L. N. Beardsley,
Totten, John Nicoll, Caleb H. Austin.	Thomas Dutton.
Moses C. White, H. Pierpont, J. H.	NAUGATUCK, J. D. Mears, John W
Beecher, L. J. Sanford, Chas. L. Ives,	Lawton.
Edward Bulkley, Jr., Wm. B. DeFor-	NORTH BRANFORD, Sheldon Beardsley.
est, Frederick L. Dibble, T. Beers	NORTH HAVEN, R. F. Stillman.
Townsend, Horace P. Porter, Evelyn	ORANGE, West Haven, H. W. Painter.
L. Bissell, Thomas N. DeBowes, Tim-	OXFORD, Lewis Barnes.
othy H. Bishop, Charles W. Sheffrey,	SEYMOUR, Thomas Stoddard, S. C. John-
Eli W. Blake.	son, Joshua Kendall.
Fair Haven, Charles S. Thomson, Wm.	SOUTHBURY, A. B. Burritt.
M. White, William H. Thomson.	South Britain, N. C. Baldwin.
BETHANY, Asa C. Woodward, Edward	WALLINGFORD, Nehemiah Banks.
P. Woodward.	WATERBURY, G. L. Platt, John Deacon,
BRANFORD, H. V. C. Holcombe, Newton	G. E. Perkins, Philo G. Rockwell,
B. Hall.	Thomas Dougherty.
CHESHIRE, A. J. Driggs.	WOODBIDGE, Isaac Goodsell.
DERBY, Charles H. Pinney.	

NEW LONDON COUNTY.

ELIJAH DYER, M. D., Chairman.

ORRIN E. MINER, M. D., Clerk.

NEW LONDON, Nathaniel S. Perkins,	Mystic River, A. W. Coates, John Gray.
Isaac G. Porter, William W. Miner,	Noank, Orrin E. Miner.
D. P. Francis, Robert A. Manwarring,	LEBANON, Ralph E. Green.
Robert McCurdy Lord.	MONTVILLE, John C. Bolles.
NORWICH, Richard P. Tracy, Erastus	Uncasville, Samuel E. Maynard.
Osgood, Elijah Dyer, Elisha Phinney,	OLD LYME, Richard Noyes.
A. B. Haile, Edwin Bentley, Daniel	PRESTON, Eleazar B. Downing.
F. Gulliver, Lewis S. Paddock.	STONINGTON, George E. Palmer, William
BOZRAH, Samuel Johnson.	Hyde, Jr.
COLCHESTER, Ezekiel W. Parsons, Fred'k	Mystic, Mason Manning, N. M. Tribou.
Morgan, Melancthon Storrs.	Mystic Bridge, E. F. Coates.
FRANKLIN, ASHBEL WOODWARD.	

FAIRFIELD COUNTY.

SAMUEL S. NOYES, M. D., Chairman.

O. STARR HICKOK, M. D., Clerk.

FAIRFIELD, S. P. V. R. Ten Broeck.	NORWALK, John A. McLean, Ira Gregg-
Greenfield, RUFUS BLAKEMAN.	ry, Samuel Lynes, John W. McLean.
Southport, Justus Sherwood.	South Norwalk, M. B. Pardee.
BRIDGEPORT, D. H. Nash, H. L. W. Bur-	RIDGEFIELD, O. S. Hickok.
ritt, Wm. B. Nash, Robert Hubbard,	STAMFORD, N. D. Haight, Lewis R. Hurl-
H. N. Bennett, Elijah Gregory.	butt, W. H. Trowbridge.
BROOKFIELD, A. L. Williams.	North Stamford, George W. Birch.
DANBURY, E. P. Bennett, William C.	STRATFORD, Wm. T. Shelton, James
Bennett.	Baldwin, R. C. McEwen.
DARIEN, Samuel Sands.	TRUMBULL, George Dyer.
GREENWICH, James H. Hoyt.	WESTPORT, George Blackman, David S.
HUNTINGTON, James H. Shelton.	Burr.
MONROE, Roger M. Gray.	WILTON, Frank N. H. Young.
NEW CANAAN, Samuel S. Noyes, Lewis	.
Richards.	

WINDHAM COUNTY.

CALVIN B. BROMLEY, M. D., Chairman.

*GIDEON F. BABSTOW, M. D., Clerk.

WINDHAM, Chester Hunt.	Central Village, Charles H. Rogers.
ASHFORD, John H. Simmons.	POMFRET, Hiram Holt, Lewis Williams.
BROOKLYN, James B. Whitcomb, Wm.	PUTNAM, H. W. Hough, Daniel B.
Woodbridge.	Plympton.
CANTERBURY, Elijah Baldwin, Joseph	SCOTLAND, Calvin B. Bromley.
Palmer.	STERLING, Wm. A. Lewis.
CHAPLIN, Orrin Witter.	THOMPSON, Lowell Holbrook, John Mc-
HAMPTON, Dyer Hughes, Jr.	Gregor, Charles Hosford.
KILLINGLY, Daysville, Justin Hammond.	VOLUNTOWN, Harvey Campbell.
South Killingly, Daniel A. Hovey.	WOODSTOCK, Lorenzo Marcy.
West Killingly, Samuel Hutchins.	North Woodstock, Asa Witter, Ebene-
East Killingly, Edwin A. Hill.	zer Witter.
PLAINFIELD, WM. H. OOGSWELL.	West Woodstock, Milton Bradford.

LITCHFIELD COUNTY.

JOSIAH G. BECKWITH, M. D., Chairman.

HENRY DAVIS, M. D., Clerk.

LITCHFIELD, J. G. BECKWITH, H. W.	BRIDGEWATER, Horace Judson.
Buell, D. E. Bostwick.	CANAAN, North, Ithamar H. Smith, Al-
Northfield, D. B. W. Camp.	bert A. Wright.
BETHLEM, Henry Davis.	CANAAN, South, John A. Gillett.

*Died since the Annual Meeting.

CORNWALL, West Cornwall, Samuel W. Gold, Edward Sanford.	SHARON, Ralph Deming, William W. Knight.
HARWINTON, G. B. Miller.	TORRINGTON, Wolcottville, Erastus Bancroft, Jeremiah W. Phelps.
MORRIS, Garry H. Miner.	WARREN, John B. Derickson.
NEW MILFORD, Gaylordsville, G. H. St. John.	WASHINGTON, Remus M. Fowler.
NORFOLK, Wm. W. Welch, John H. Welch.	New Preston, Sidney H. Lyman, Edward P. Lyman.
PLYMOUTH, Samuel T. Salisbury.	WINCHESTER, West Winsted, James Welch, John W. Bidwell.
Plymouth Hollow, Wm. Woodruff.	WOODBURY, Charles H. Webb, Harmon W. Shova.
ROXBURY, Myron Downes.	
SALISBURY, Lakeville, Benjamin Welch, William Bissell, Henry M. Knight.	

MIDDLESEX COUNTY.

GEORGE W. BURKE, M. D., Chairman.

SYLVESTER W. TURNER, M. D., Clerk.

MIDDLETOWN, Chas. Woodward, Elisha B. Nye, George W. Burke, John E. Blake, Rufus Baker.	ESSEX, Alanson H. Hough, Charles H. Hubbard.
CHATHAM, Middle Haddam, A. B. Worthington.	HADDAM, Miner O. Hazen.
CHESTER, S. W. Turner.	KILLINGWORTH, A. J. Webster.
CLINTON, Denison H. Hubbard.	OLD SAYBROOK, Asa H. King.
CRONWELL, Ira Hutchinson.	PORTLAND, George O. Jarvis, G. C. H. Gilbert.
DURHAM, R. W. Mathewson, W. R. Griswold.	SAYBROOK, Deep River, Edwin Bidwell, Nehemiah Nickerson.
EAST HADDAM, Asa M. Holt, Datus Williams.	WESTBROOK, Horace Burr.

TOLLAND COUNTY.

WM. H. RICHARDSON, M. D., Chairman.

GILBERT H. PRESTON, M. D., Clerk.

TOLLAND, Oliver K. Isham, G. H. Preston.	Mansfield Depot, Norman Brigham.
BOLTON, Charles F. Sumner.	SOMERS, Orson Wood.
COVENTRY, Eleazar Hunt.	STAFFORD, Wm. N. Clark.
South Coventry, Timothy Dimock, Henry S. Dean.	West Stafford, J. C. Blodgett.
ELLINGTON, J. A. Warren.	Stafford Springs, C. B. Newton.
HEBRON, Orrin C. White.	Staffordville, S. F. Pomeroy.
MANSFIELD, Wm. H. Richardson.	VERNON, N. Gregory Hall.
Mansfield Centre, Earl Swift, O. B. Griggs.	Vernon Depot, A. R. Goodrich.
	Rockville, Stephen G. Risley, Francis L. Dickinson.

**SUMMARY OF ORDINARY MEMBERS FOR 1864; WITH DEATHS
REPORTED FOR THE YEAR ENDING APRIL 1, 1864.**

	Total.	Deaths.
Hartford County, ...	68	1
New Haven County, ...	74	0
New London County, ...	32	1
Fairfield County, ...	35	1
Windham County, ...	27	1
Litchfield County, ...	34	1
Middlesex County, ...	22	1
Tolland County, ...	21	0
	313	6

NOTE.—Former Fellows of the Connecticut Medical Society are *permanent members* of the Annual Convention, having the privilege of attending all meetings and performing all the duties of Fellows, except voting. All the members of the Society are invited to be present at the meetings of the Convention.

**DEATHS OF MEMBERS DURING THE YEAR ENDING APRIL 1, 1864, WITH THE AGES
AND CAUSES OF DEATH.**

Hartford County.

Asa L. Spaulding died at Enfield, Jan. 7, 1864, of Typhoid Fever, aged 63 years.

New London County.

Joseph Durfee, of Groton, died March 25th, 1864, of Disease of the Prostate Gland, aged 74 years.

Fairfield County.

R. M. Lyon, of Bethel, died at Port Hudson, (date not reported,) of Typhoid Fever, aged 36 years.

Windham County.

Gideon F. Barstow, of Putnam, (died since April 1, 1864.)

Litchfield County.

A. M. Huxley died, January, 1864, of disease of heart, aged 58 years.

Middlesex County.

Augustus J. Webster, of Killingworth, died during the last year, (date not given.) of Erysipelas, aged 28 years.

DUTIES OF COUNTY CLERKS.

To warn County Meetings.

To record the proceedings of the County Meetings.

To collect the taxes and pay the same to the Treasurer.

To transmit to the Secretary a list of the elected Fellows, and the person recommended as a candidate for a gratuitous course of lectures in the Yale Medical College, immediately after the Annual County Meetings, for publication.

To return to the Treasurer the names of members delinquent on taxes, with amounts severally due from each, and to specify the names of paying members.

To transmit duplicate lists of the Members of the Society to the Secretary and Treasurer, on or before the first day of the Convention, on penalty of five dollars for each neglect.

To report to the Secretary of the State Society, on the first day of its Annual Convention, the names, ages, and diseases of the Members of this Society who have died during the year preceding the 1st of April in each year, in their several County Associations.

RULES OF ORDER.

1. Organization.
2. Certificates of Membership presented and read by the Secretary.
3. Committee on the Election of Fellows.
4. Election of Officers for ensuing year.
5. Unfinished business of previous year disposed of.
6. Reception and reference, without debate, of Communications, Resolves, &c., from the several Counties, and Members of the Convention.
7. Reading Treasurer's Report.
8. Committee to audit the same.
9. Standing Committees appointed.
10. Committee to nominate delegates to the American Medical Association.
11. Committee on Candidates for Gratuitous Course of Lectures.
12. Committee on Honorary Degrees and Honorary Membership.
13. Committee to Nominate Dissertator.
14. President's Address.
15. Reports of Committee appointed on County Communications, Resolves, &c.
16. Reports of Standing Committees.
17. Reports of Committees, in the order in which business was brought forward in Convention.
18. Miscellaneous Business.
19. Literary Exercises.—*a*, Dissertation; *b*, Obituary notices of deceased Members; *c*, Voluntary Communications.

LIST OF ADDRESSES AND DISSERTATIONS DELIVERED IN CONVENTION.

- 1793 President's Address, by Dr. Leaveritt Hubbard.
1794 Prize Essay on Autumnal Bilious Fever, by Dr. S. H. P. Lee.
1794 Prize Essay on the Properties of Opium, by Dr. G. Shepherd.
1795 Eulogy on Dr. L. Hubbard, by Dr. Eneas Monson, President.
1795 Prize Essay on the preparation of Antimony, by Dr. F. P. Ouvre.
1795 Prize Essay on the Different Species of Colic, by Dr. T. Betts.
1796 Prize Essay on the Contagion of Yellow Fever, by Dr. F. P. Ouvre.
1796 Prize Essay on Cynanche Tonsillaris, by Dr. S. H. P. Lee.
1796 Prize Essay on the Most Eligible Mode of Increasing Medical Knowledge in this State, by Dr. Lewis Collins.
1796 Prize Essay on the same subject, by Dr. Gideon Shepherd.
1798 History of a case of Bilious Concretion, by Dr. L. Hopkins.
1798 An Essay, by Dr. Jared Potter.
1799 A Dissertation, by Dr. Thaddeus Clark.
1800 A Dissertation on Lunacy, by Dr. Nathaniel Dwight.
1804 Essay on the Stafford Mineral Waters, by Dr. S. Willard.
1812 Essay on the necessity of a Hospital for Lunatics in this State, by Dr. Nathaniel Dwight.
1817 Dissertation on the Deleterious Effects of Ardent Spirits, by Dr. W. R. Fowler.
1818 On Ergot, by Dr. William Buel.
1820 Dissertation on Typhus Fever, by Dr. Thomas Miner.
1821 Dissertation on Uterine Hemorrhage, by Dr. Samuel Rockwell.
1822 Dissertation on the Yellow Fever at Middletown, by Dr. William Tully.
1823 Dissertation by Dr. Dyer T. Brainerd.
1829 Dissertation on extra-uterine Conception, by Dr. Geo. Sumner.
1830 Dissertation on Diseases of the Ear, by Dr. Charles Hooker.
1835 Dissertation on the Vitality of the Blood, by Dr. Benjamin Welch, Jr.

- 1836 Influence of Moral Emotions on Disease, by Dr. E. H. Bishop.
- 1837 An Address by the President, Dr. Thomas Miner.
- 1837 A Dissertation on Scarlet Fever, by Dr. Archibald Welch.
- 1838 A Dissertation on Spinal Irritation, by Dr. Isaac G. Porter.
- 1839 A Dissertation on the Mental Qualifications necessary to a Physician, by Dr. Henry Bronson.
- 1840 A Dissertation on the Advantages of Prompt and Efficient Practice in Acute Diseases, by Dr. Richard Warner.
- 1841 An Address by the President, Dr. Silas Fuller.
- 1841 A Dissertation on Insanity as a subject of Medical Jurisprudence, by Dr. Amariah Brigham.
- 1842 A Disseration on Uterine Irritation, by Dr. Chas. Woodward.
- 1843 An Address by the President, Dr. Elijah Middlebrook.
- 1843 A Dissertation on Phlebitis, by Dr. Pinckney W. Ellsworth.
- 1845 A Dissertation on the Respect due to the Medical Profession and the Reasons that it is not awarded by the Community, by Dr. Worthington Hooker.
- 1845 A Dissertation on Laryngismus Stridulus, by Dr. N. B. Ives.
- 1846 A Dissertation, Practical Observation on Typhus Fever, by Dr. Theodore Still.
- 1847 A Dissertation on the Importance of a Medical Organization and the advantages resulting from it, by Dr. E. K. Hunt.
- 1848 A Dissertation on Some Forms of Non-Malignant Disease of the Cervix Uteri, by Dr. B. Fordyce Barker.
- 1849 An Address by the President, Dr. Archibald Welch.
- 1849 A Dissertation on Hygiene, by Dr. Alvan Talcott.
- 1850 A Dissertation on Medical Jurisprudence, by Dr. J. C. Hatch.
- 1851 An Address by the President, Dr. George Sumner, on the Early Physicians of Connecticut.
- 1853 An Address by the President, Dr. Rufus Blakeman, on the Early Physicians of Fairfield County.
- 1853 A Dissertation on Popularizing Medicine, by Dr. S'l Beach.
- 1854 A Dissertation on Diseased Cervix Uteri, by Dr. Wm. B. Casey.
- 1855 A Dissertation on Registration as the Basis of Sanitary Reform, by Dr. Stephen G. Hubbard.
- 1857 An Address by the President, Dr. Benjamin H. Catlin, on the Connecticut Medical Society.

- 1857 A Dissertation on the Medical Profession, by Dr. Benj. D. Dean.
- 1858 An Address by the President, Dr. Benjamin H. Catlin, on the Claims of the Regular Medical Profession to the Confidence of the Community.
- 1859 An Address by the President, Dr. Ashbel Woodward, being an Historical Account of the Connecticut Medical Society.
- 1859 A Dissertation on the Issue, by Dr. Rufus Baker.
- 1860 An Address by the President, Dr. Ashbel Woodward, on Medical Ethics.
- 1860 A Dissertation on Hygiene, by Dr. A. B. Haile.
- 1861 An Address by the President, Dr. Ashbel Woodward, on Life.
- 1861 A Dissertation on Hereditary Predisposition, by Dr. J. B. Lewis.
- 1862 An Address by the President, Dr. Josiah G. Beckwith, on Medical Progress.
- 1862 A Dissertation, being a Review of the present state of the question of Spontaneous Generation, by Dr. M. C. White.
- 1863 An Address by the President, Dr. Josiah G. Beckwith, on the Dignity and Grandeur of the Medical Profession.
- 1863 A Dissertation on Logic applied to Medical Science, by Dr. J. C. Jackson.
- 1864 An Address by the President, Dr. E. K. Hunt, on Inert Practice in Disease.
- 1864 A Dissertation on Scarlatina, by Dr. P. M. Hastings.

APPENDIX A.

Report of the Committee on Examination.

The Medical Department of Yale College held its Semi-Annual Examination July 28, 1863.

There were present, from the Board of Examination on the part of the Connecticut Medical Society, Ebenezer K. Hunt, M.D., President; S. L. Child, M.D.; Sidney W. Rockwell, M.D.; Lewis Barnes, M.D.; and on the part of Yale College, Professors Jonathan Knight, M.D., Worthington Hooker, M.D., Benjamin Silliman, Jr., M.D., C. A. Lindsley, M.D., and L. J. Sanford, M.D.

Two candidates submitted their Theses, viz :

THOMAS NORTON HILLS, of New Haven, on the "Hypodermic Treatment of Disease."

FREDERICK STARR TREADWAY, of New Haven, on "Yellow Fever."

After an examination, they were recommended for the Degree of Doctor of Medicine. A statement being made, that Mr. CHARLES SAMUEL WARD was unable to present himself for examination at that time, for reasons satisfactory to the Board, it was voted, that the Faculty, the President of the Board acting with them, should examine Mr. Ward in special meeting for that purpose. In accordance with the vote, a special session was held by the Faculty, Aug. 17, 1863. There were present with them, from the Connecticut Medical Society, E. K. Hunt, M.D., President, and S. L. Child, M.D.

Two candidates presented Theses, were examined, and were recommended for the Degree of Doctor of Medicine, viz :

WINSLOW LEVI PERKINS, of New London, on "Scarlet Fever."

CHARLES SAMUEL WARD, of New Haven, on "Gun Shot Wounds."

Mr. Perkins was admitted to an examination at this time by special vote obtained of the Committee in writing.

The Annual Examination was held, Jan. 13th and 14th, 1864.

There were present from the Committee of Examination, Ebenezer K. Hunt, M. D., President; S. L. Child, M. D., Sidney W. Rockwell, M. D., Lewis Barnes, M. D.; and on the part of the College, Professors J. Knight, M. D., W. Hooker, M. D., B. Silliman, Jr., M. D., C. A. Lindsley, M. D., L. J. Sanford, M. D.; also, Wm. B. Casey, M. D., Lecturer on Obstetrics.

Twelve successful Candidates presented Theses, viz :

- JONATHAN KNIGHT BACON, of Woodbury, on "Stricture of the Male Urethra."

WILLIAM LOCKWOOD BRADLEY, B. A., of New Haven, on "Dysentery in the Army of the United States."

FERDINAND BEACH, B. A., New York City, on "Pulmonary Consumption."

GEORGE WASHINGTON BEACH, Montrose, Pa., on "Puerperal Fever"

LEBEUS C. CHAPIN, M. A., New Haven. The Valedictory, and "On the Known and Unknown in the Problem of Health."

VIRGIL MARO DOW, M. A., New Haven, on "Cathartic Remedies."

NAPOLEON BONAPARTE KENYON, Providence, R. I., on "Dyspepsia."

DURRELL SHEPARD, New Haven, on "Rheumatism."

S. CAMBRELENG POWELL, New York City, on "Pericarditis.

HENRY STEWART TURRILL, New Milford, on "Diarrhea."

SUTHERLAND DOUGLAS TWINING, P. B., New Haven, on the "Nature of Inflammation."

JOHN HEMAN TYLER, Madison, on "Disease."

The Medical Commencement Exercises were held Thursday evening, Jan. 14th, when the Annual Address to the Candidates was delivered by Horace Burr, M. D., of Westbrook, and the Medical Degrees were conferred by President Woolsey.

Isaac G. Porter, M. D., of New London, and Gurdon W. Russell, M. D., of Hartford, were appointed to deliver the successive Annual Addresses of 1865, and '66.

Lewis Barnes, M. D., was appointed to report the proceedings of the Board to the Connecticut Medical Society.

The Board then adjourned to the Semi-Annual Examination, July 26, 1864.

[Signed.]

LEWIS BARNES, M. D.

APPENDIX B.

Report of the Nominating Committee.

The Committee of this Society appointed to nominate, on its part, Professors in the Medical Institution of Yale College, would respectfully report:—

That a meeting of the joint Committee of the Corporation of Yale College and the Connecticut Medical Society, was held agreeably to the call of the President of Yale College, at New Haven, February 12th, 1864.

There were present, on the part of the Corporation of the College, Theodore D. Woolsey, D. D., LL. D., Jeremiah Day, D. D., LL. D., and Benjamin Silliman, M. D., LL. D. On the part of this Society, the entire Committee.

President Woolsey was appointed Chairman, and H. M. Knight, Secretary.

After discussion, Voted to adjourn to March 11th, at 3½ o'clock, P. M.

March 11th, 1864.—Committee met, according to adjournment. After consultation, proceeded to ballot, when Stephen G. Hubbard, M. D., was unanimously nominated as Professor of Obstetrics, to fill the vacancy occasioned by the resignation of Professor P. A. Jewett.

HENRY M. KNIGHT, *Sec'ry.*

APPENDIX C.

Report of the Russell Prize Committee.

[No Dissertation for the Russell Prize having been offered, during the last Conventional year, it was voted that the offer should be continued through the current year. The same Committee were also continued, who offer the same subjects for the prize that were proposed the previous year, subject to the same conditions.]

The Committee to whom was assigned the duty of selecting subjects for Dissertations, and of awarding the premium for that which they shall decide to be the best, submit the following :

I. Prophylaxis, as it relates to Phthisis pulmonalis.

II. Calomel and Tartar Emetic: What constitutes their appropriate use, and, in the present state of medical knowledge, can the interests of humanity be equally subserved by any substitute or substitutes ?

Dissertations on the foregoing subjects must be transmitted to the Chairman, on or before the first Wednesday of April, 1865.

Competition for the prize will be limited to practitioners of medicine now residents of this State, and the author of the successful Dissertation, on either of the subjects named, will receive the premium of Fifty dollars.

Each Dissertation must be accompanied by a sealed packet, on which shall be written some device or sentence, and within shall be enclosed the author's name and residence. The same device or sentence is to be written on the Dissertation to which the packet is attached.

Unsuccessful Dissertations will be retained by the Chairman, subject to the order of their authors, for one year.

The Committee reserve the right to withhold the premium in case no Dissertation received shall be considered by them to be worthy of the prize.

E. K. HUNT,
HENRY M. KNIGHT, } *Committee.*
CHARLES L. IVES,

APPENDIX D.

Report of the Delegation to the New York Medical Society.

The Delegation appointed to attend the Convention of the New York Medical Society, held at Albany, February 2d, 1864, respectfully beg leave to report :

We regret that the Delegation was not full, as the meeting of the Society was one of unusual interest, calculated to elevate the character and dignity of the profession, and the pleasing occasion for cultivating those social relations and personal friendships which render the arduous duties of our profession more pleasant to us and profitable to the public.

The President, Dr. Daniel P. Bissell, delivered an eloquent Address at the opening of the Convention, in accordance with their By-Laws and preceding usage, setting forth the condition of the Medical Profession in the State, and making suggestions relative to its improvement, and also in relation to the business which properly came before them for action.

We deem this an improvement worthy of adoption, being in accordance with the custom of legislative bodies. On this message are appointed appropriate Committees, which take into consideration the various matters which the message recommends to the Convention. It is well understood that the Medical Society of the Empire State holds an important position with the administration of its government, and that the President's Address is delivered in the Assembly Room, in the presence of the Legislature and the citizens of the State, and published with the regular documents, at the expense of the State.

The meeting was unusually large. Delegates were in attendance from all the New England States, and distinguished Surgeons from the Army and Navy, all of whom were invited to participate in the

proceedings of the Convention. Invitations were extended to all the physicians in attendance, to visit social entertainments at the residences of Prof. March, President of the American Medical Association, and Gen. Quackenbosh, Surgeon General of the State. After the adjournment, a princely entertainment was given at the Executive Mansion, by Governor Horatio Seymour, worthy of the occasion, and attended by officers of the Army and distinguished gentlemen from abroad. The delivery of the Address of the retiring President, Dr. Bissell, and the election of officers, (Dr. Hyde succeeding to the Presidency,) with the choice of a large number of permanent members, delegates to other State Societies and honorary members, closed the proceedings.

The occasion was one of great interest to all the members and guests, and it will be long remembered.

Respectfully submitted,

J. G. BECKWITH.

APPENDIX E.

Report of Committee on Donations to Yale Medical College.

Your Committee would call the attention of the Convention to the Medical Department of Yale College. While the other departments of science and literature have been endowed with large funds, at which we rejoice, (for we consider the literary institutions of our State both her pride and glory,) the Medical Department has been sadly neglected and suffered to languish for want of proper funds, which could be so judiciously employed in adding to her Library, her Anatomical Museum, to her Collection of Morbid Specimens, and in many other ways to increase her efficiency, enlarge her usefulness, and place her in the foremost rank of the medical schools of our country. The present seems to be a propitious time to call the attention of the friends of the University to this particular branch of science, when the demand for educated physicians is so great.

New Haven now affords all the requisites for a first class medical school, and offers, in her Professors, in her Hospital, and in the increased number of her inhabitants, those facilities for obtaining a thorough theoretical and practical knowledge of those branches, not exceeded elsewhere. We therefore recommend that the subject of collecting funds for the better endowment of the Medical Department of Yale College, be referred to a Committee, to take such action as shall seem to them advisable, to secure this object.

Respectfully submitted.

GEO. E. PALMER,	} Committee.
M. C. WHITE,	
S. W. TURNER,	

The Report was adopted, and Doctors RALPH DEMING, GIDEON L. PLATT, DAVID A. TYLER, SIDNEY W. ROCKWELL, and CHARLES F. SUMNER, were appointed a Committee to take measures to secure funds for the purposes mentioned in the above Report.

APPENDIX F.

Report on Financial Condition of the Society.

The Committee appointed to consider the Financial condition of the Society, respectfully recommend, that the Treasurer of the Connecticut Medical Society be authorized to appoint the present Clerks of the Counties, or other suitable persons, to visit in person, or solicit by Circular, from each delinquent, the amount due to the Society;—to collect the debenture Bills, and settle up all the financial matters in the several counties;—and that the delinquents who cannot be induced, either by a sense of honor, or obligation to the Society for the many benefits which they have received, be reported to the next Annual Meetings in their respective Counties, and to the State Society, for action at the next Annual Convention.

J. G. BECKWITH,
JOEL CANFIELD,
• G. H. PRESTON,
A. WOODWARD,
M. B. PARDEE,
JOHN H SIMMONS,
ELISHA B NYE,
A. B. BARROWS,

} Committee.

APPENDIX G.

Report of State Medical Board.

The State Medical Board would report :—

That they have, since April 1863, held seven Sessions by order of the Governor ; of these, three were in Hartford, and four in New Haven.

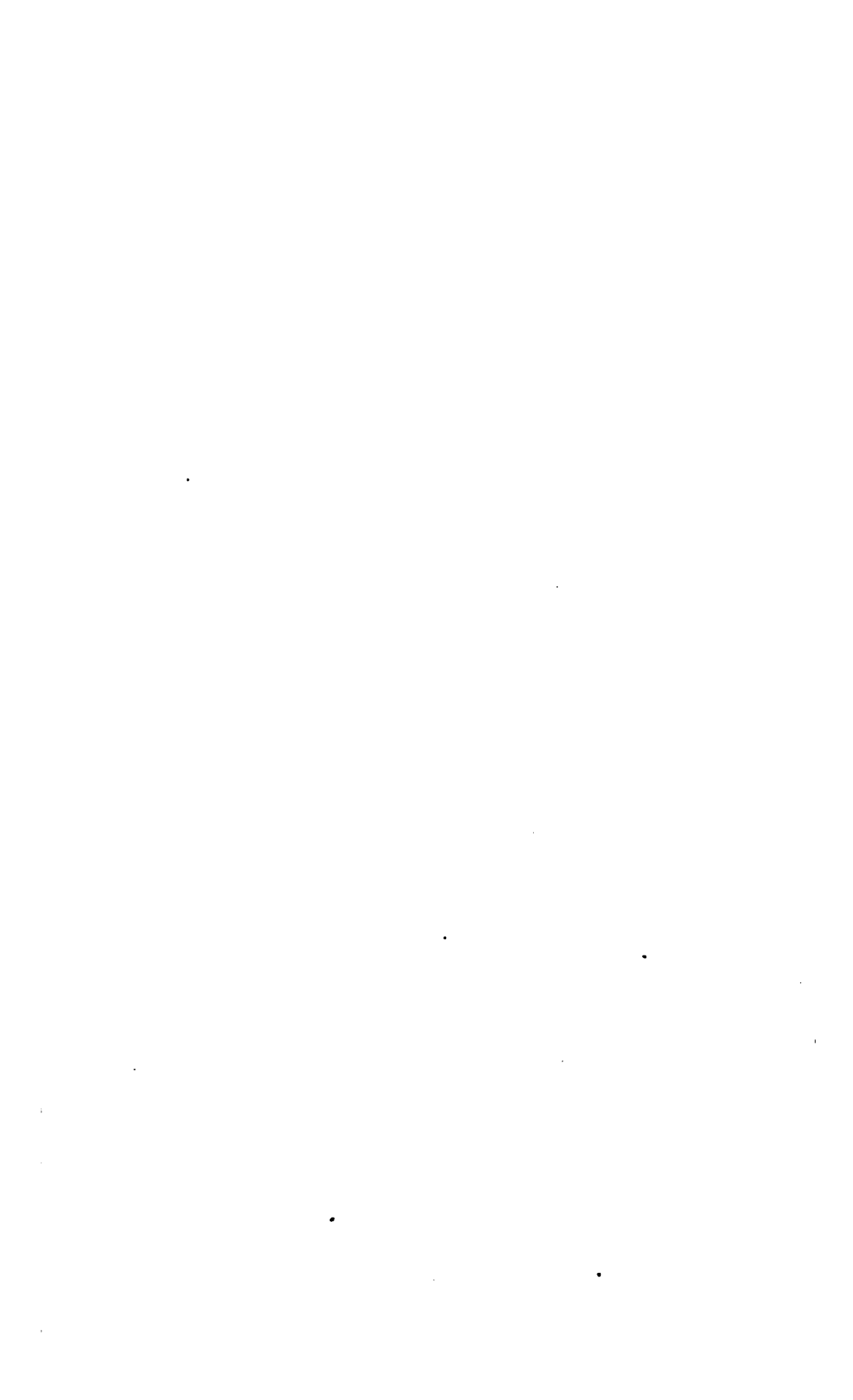
They have examined eighteen gentlemen, and have recommended seventeen for appointment as Assistant Surgeons in the Connecticut Volunteers.

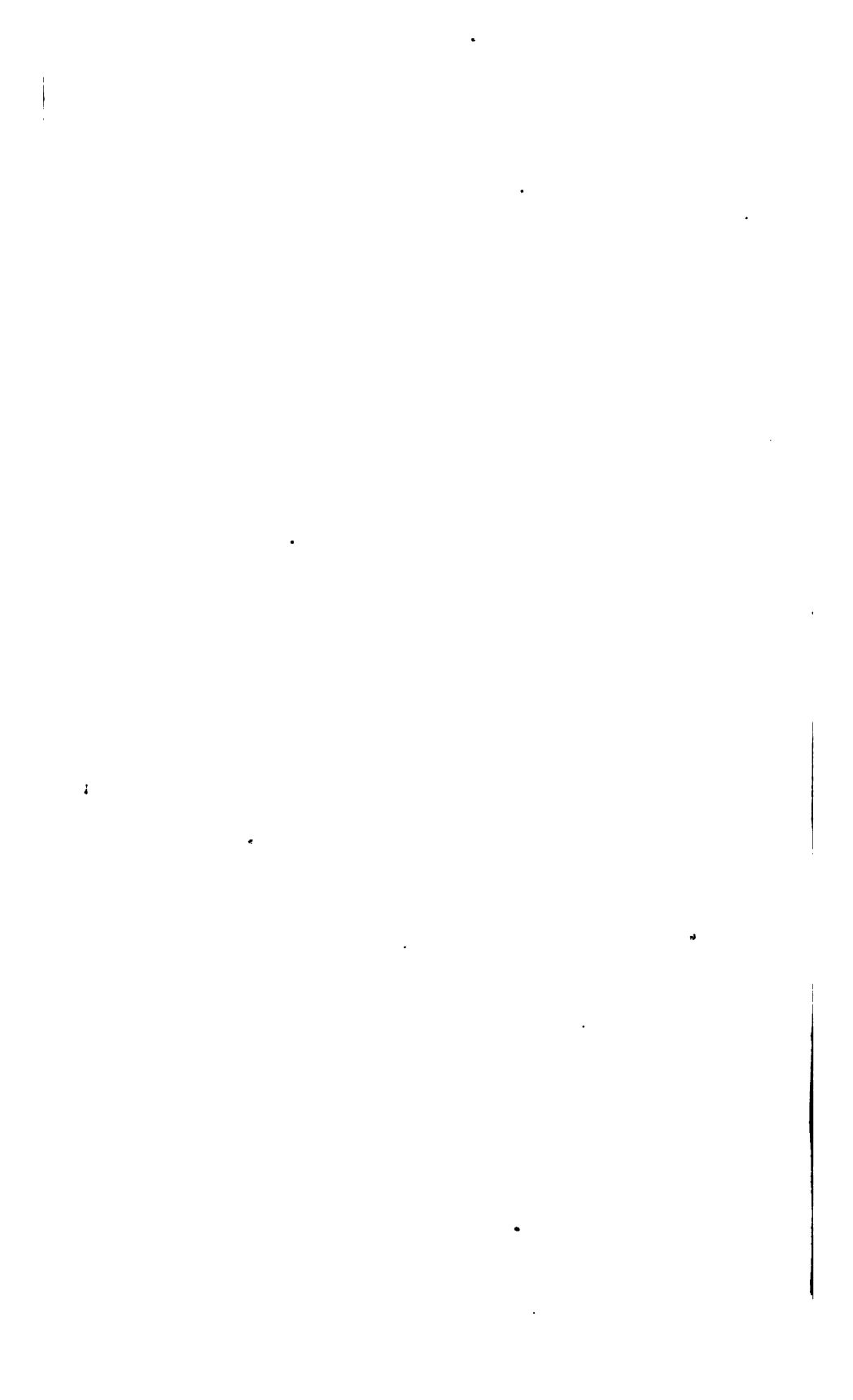
It is not known that any deaths have occurred in the Medical Staff from this State since the last report.

GURDON W. RUSSELL,	} <i>Medical</i>
P. A. JEWETT,	
ASHBEL WOODWARD,	

Board.

May 25, 1864.





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Dr. WILLARD PARKER,	Dr. F. H. HAMILTON,
Dr. J. M. CARNOCHAN,	Dr. STEPHEN SMITH,
Dr. GURDON BUCK,	Dr. JAMES R. WOOD, etc.,

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N. B.—The Seventy-third Annual Meeting of the Connecticut Medical Society will be held at Hartford, on Wednesday, May 24th, 1865, at 11 o'clock A. M., and will continue through the day following.

•

PROCEEDINGS.

THE Seventy-third Annual Convention of the Connecticut Medical Society was held in Hartford, May 24th and 25th, 1865.*

The Convention met at the Hartford Hospital, and was called to order at 11 A. M., by the President, E. K. Hunt, M. D. The list of Fellows, as reported by the Clerks of the several County Meetings, was read by the Secretary.

The President appointed Drs. B. N. Comings, Henry Pierpont and S. W. Turner, a Committee on Credentials.

The Committee on Credentials reported the following persons duly elected as Fellows of the Convention, and the report was accepted as follows, viz:

FELLOWS.

HARTFORD COUNTY.

Gordon W. Russell, M. D.	Edward Brandegee, M. D.
P. W. Ellsworth, “	R. W. Griswold, “
B. N. Comings, “	“

NEW HAVEN COUNTY.

Henry Bronson, M. D.	R. F. Stillman, M. D.
Henry Pierpont, “	N. B. Hall, “
*Francis Bacon, “	“

NEW LONDON COUNTY.

Ashbel Woodward, M. D.	Charles M. Carlton, M. D.
*George E. Palmer, “	*John Gray.
Isaac G. Porter, “	“

FAIRFIELD COUNTY.

William H. Trowbridge, M. D.	*George Birch, M. D.
*Moses B. Pardee, “	*Samuel Sands, “

* Absent.

LITCHFIELD COUNTY.

Samuel T. Salisbury, M. D.	John B. Derickson, M. D.
*Jeremiah W. Phelps, “	B. B. North, “
James Welch, “	

MIDDLESEX COUNTY.

Sylvester W. Turner, M. D.	Ira Hutchinson, M. D.
Rufus Baker, “	

TOLLAND COUNTY.

Stephen G. Risley, M. D.	S. F. Pomeroy, M. D.
N. Gregory Hall, “	

WINDHAM COUNTY.

Harvey Campbell, M. D.	*Samuel Hutchins, M. D.
Calvin B. Bromley, “	E. Huntington, “
Joseph Palmer, “	

DELEGATES PRESENT FROM NEW HAMPSHIRE MEDICAL SOCIETY.

E. K. Webster, M. D.	P. A. Stackpole, M. D.
----------------------	------------------------

DELEGATES FROM MEDICAL SOCIETY OF STATE OF NEW YORK.

John G. Adams, M. D.	Hiram Corliss, M. D.
James Hart Curry, “	

The following gentlemen were elected Officers of the State Society for the ensuing year, viz :

NATHAN B. IVES, M. D., PRESIDENT.
 ISAAC G. PORTER, M. D., VICE-PRESIDENT.
 JAMES C. JACKSON, M. D., TREASURER.
 MOSES C. WHITE, M. D., SECRETARY.

Note.—The President, Nathan B. Ives, M. D., being in delicate health, at his special request the Chair was occupied by the Vice-President, Isaac G. Porter, M. D., through all the sessions of the Convention.

The Chairman then appointed as a Committee on Unfinished Business, Ashbel Woodward, M. D., James Welch, M. D., and Stephen G. Risley, M. D.

On Communications and Resolves from Counties, Edward Brandege, M. D., Wm. H. Trowbridge, M. D., and Samuel Hutchinson, M. D.

The Committee on Unfinished Business reported that the case of Dr. John Gray, who was nominated in 1863 as a candidate for an Honorary Degree, was not submitted to vote last year, and recommended that the case be now referred to the Committee on Honorary Degrees and Honorary Membership. The report was accepted and the case was referred, as recommended.

The following Committees were then appointed by the Chair, viz:

On Honorary Degrees and Honorary Membership:

Drs. P. W. Ellsworth, Chas. M. Carlton, and B. B. North.

Committee on Candidates for a Gratuitous Course of Lectures:

Drs. H. Bronson, S. T. Salisbury, and Rufus Baker.

To nominate Dissertator and Alternate:

Drs. G. W. Russell, H. Pierpont, and S. W. Turner.

To nominate Delegates to the American Medical Association for the year 1866:

Drs. B. N. Comings, Ashbel Woodward, and Ira Hutchinson.

The Committee on the Russell Prize Fund reported that the Prize of Fifty Dollars had been awarded to G. W. Burke, M. D. of Middletown, for an Essay on Prophylaxis, as it relates to Phthisis Pulmonalis. The report was accepted and the award approved. [See Appendix C.]

Doctor Hunt stated that the President, N. B. Ives, M. D., had placed in his hands Fifty Dollars as a donation, to enable the Society to offer a Prize for the best Essay presented next year.

On motion, the money was accepted and the thanks of the Convention were returned to Dr. Ives for this munificent gift.

On motion, it was *Resolved*, That the Vice-President, Isaac G. Porter, M. D., and two others to be selected by himself, shall constitute a Committee to propose subjects and award the *Ives Prize of Fifty Dollars* for the best Essay which shall be presented under such regulations as they may adopt.

An invitation was received from the Hartford Medical Association, for the Convention to attend a Social Meeting at the Trumbull House, at 9 P. M., immediately after the delivery of the President's Address. The invitation was accepted.

The Committee on Honorary Degrees' reported adverse to

granting an Honorary Degree to Dr. John Gray, on the ground that he had but recently received a License on the recommendation of the Convention, and now possesses all the privileges of a member and Fellow of the State Society.

The report was accepted, and, after discussion, in which it was stated that a rule of the State Society, adopted some thirty years ago, forbade the granting of an Honorary Degree to a licentiate until after fifteen years practice, [see Proceedings for 1831 and 1856,] the report of the Committee was adopted.

The Committee of Publication reported the titles of papers presented for publication. The papers recommended will be found in the Proceedings. On the recommendation of the Committee, it was

Resolved, That hereafter it be required as a condition of reception by the Committee of Publication, that *All papers properly coming before them, be sent in to some member of the Publishing Committee at least ONE WEEK before the Annual Convention.*

On motion of Dr. Stillman, it was

Resolved, That we suspend the rules in regard to literary exercises, and that Dr. Bronson be requested to read the Biography of Dr. C. Hooker, this afternoon, and that Prof. W. Hooker be requested to read the Biography of Prof. J. Knight, M. D., tomorrow forenoon.

Adjourned to 3 P. M.

Afternoon Session.

The Convention reassembled at 3 P. M., the Vice-President, Isaac G. Porter, M. D., in the Chair.

The credentials of James Hart Curry, M. D., a Delegate from the New York State Medical Society, were presented.

Dr. Curry was then introduced and addressed the Convention.

The Chair appointed Drs. H. Pierpont, Joseph Palmer, and R. W. Griswold, a Committee to nominate delegates to other Societies.

The Report of the Committee to Nominate Professors in the Medical Institution of Yale College, was received and ordered to be printed. [See Appendix B.]

The Committee on Gratuitous Students reported that New London, Middlesex and Tolland Counties had made no appointments. They recommended that the appointments made by the

other Counties be approved, and they presented three candidates to fill vacancies, the gentlemen proposed being duly certified as qualified according to law. The Report was accepted, and the entire list approved as follows, viz:

Hartford County, L. D. McLean, of Glastenbury.

New Haven County, Dexter Lounsbury, of Naugatuck.

New London County, Francis J. Young, of Sharon.*

Fairfield County, Charles Morgan, of Ridgefield.

Litchfield County, Albert Hallam, of Winsted.

Middlesex County, Robert B. Goodyear, of North Haven.*

Tolland County, Seth Hill, of Bridgeport.*

Windham County, Daniel T. Bromley, of Scotland.

The vacancies in the Standing Committees were filled by general ballot as follows, viz:

P. W. Ellsworth, M. D., }
H. N. Bennett, M. D., } Committee of Examination.

H. Pierpont, M. D., }
G. W. Russell, M. D., } Committee to Nominate Physician to
Retreat for the Insane.

S. G. Risley, M. D., }
S. T. Salisbury, M. D., } Committee to Nominate Professors in
Yale Medical College.

C. L. Ives, M. D., }
L. S. Wilcox, M. D., } Committee of Publication.

B. H. Catlin, M. D., Committee on Registration.

Henry Bronson, M. D., then read a biography of Charles Hooker, M. D., late Professor of Anatomy and Physiology in Yale College.

On motion, it was

Resolved, That the thanks of the Convention be given to Dr. Bronson, for his very interesting biography of Dr. Hooker, and that a copy be requested for publication.

The Committee on Endowment of Yale College, not being able to be present, (the Chairman had met with an injury,) sent a verbal report by Dr. Bronson. After remarks by Prof. S. G. Hubbard, M. D., and others, it was

Resolved, That Drs. G. L. Platt, D. A. Tyler, S. W. Rockwell, Geo. E. Palmer, and H. N. Bennett, constitute a Standing Committee on the Endowment of Yale Medical College.

The Treasurer, J. C. Jackson, M. D., made a Report of the

* Appointed by the Convention to fill vacancies.

Finances of the Society, which was accepted and referred to an Auditing Committee, consisting of Drs. Rufus Baker and R. F. Stillman, who reported that they found the Treasurer's Report correct. Report accepted.

The following is a summary of the Treasurer's Report :

May 24, 1864, Balance in the Treasury, - -	\$ 24.27	
Received from Clerks and Ex-clerks, from May 26, 1864, to May 24, 1865, - - -	517.23	\$541.50
Disbursements from May 26, 1864, to May 24, 1865, - - - - -		204.54
Balance in the Treasury, May 24, 1865, -		\$336.96
Due from Clerks and Ex-clerks, - - -	1,744.16	
Deduct one-half for abatement, commissions, bad debts, &c., - - - - -	872.08	872.08
Total of cash and due from clerks, -		\$1,209.04
The Society owes for outstanding debentures,		379.75
Balance in favor of the Society, - - -		\$829.29
" " " " last year,		507.42
Excess of balance over that of last year,		\$321.87

Dr. G. W. Russell presented the Report of the State Medical Board, which was accepted, and ordered to be printed. [See Appendix D.]

Voted, That the Secretary be directed to call the next Convention at 3 P. M. the 4th Wednesday of May, 1866.

The Committee on Dissertator proposed the name of C. L. Ives, M. D., of New Haven, for Dissertator next year, and Robert Hubbard, M. D., of Bridgeport, as Alternate. The report was accepted and the gentlemen appointed.

Voted, That the Secretary and Treasurer be authorized to publish five hundred and fifty copies of the Proceedings.

The Committee to nominate delegates to other Societies, made their Report, which was adopted, as follows, viz. :

To the Medical Society of Maine, Rufus Baker, M. D., of Middletown, Charles M. Carlton, M. D., of Norwich, N. B. Plympton, M. D., of Putnam.

To the Medical Society of New Hampshire, B. N. Comings, M. D., of New Britain, A. Morrison, M. D., of Windsor, Ashbel Woodward, M. D., of Franklin.

To the Medical Society of Vermont, S. L. Childs, M. D., of East Hartford, C. B. Bromley, M. D., of Scotland, G. L. Platt, M. D., of Waterbury.

To the Medical Society of Massachusetts, C. L. Ives, M. D., of New Haven, J. E. Blake, M. D., of Middletown, G. W. Russell, M. D., of Hartford.

To the Medical Society of Rhode Island, B. B. North, M. D., of Cornwall, Joseph Palmer, M. D., of Canterbury, S. W. Turner, M. D., of Chester.

To the Medical Society of New York, Francis Bacon, M. D., of New Haven, James Welch, M. D., of Winsted, B. H. Catlin, M. D., of West Meriden.

To the Medical Society of New Jersey, A. W. Barrows, M. D., of Hartford, G. A. Moody, M. D., of Plainville, Harvey Campbell, M. D., of Voluntown.

Voted, That delegates not able to attend be authorized to appoint substitutes.

Voted, That the annual tax be *two dollars*, payable June 1st.

Dr. S. W. Rockwell presented the Report of the Examining Committee, which was accepted and ordered to be printed. [See Appendix A.]

Through Dr. Ellsworth, invitations were received to visit the Trumbull Gallery and Historical Rooms in Wadsworth's Athenæum at 7½ A. M., and the Retreat for the Insane at 8½ A. M. Also to visit the Asylum for the Deaf and Dumb, Colt's Factory, and Woodruff and Beach's Iron Works, at such hours as the Fellows may find convenient.

Voted, To accept the above invitations.

Adjourned to meet in the Representatives' Hall at 8 P. M., to hear the President's Address, and to re-assemble at the Hospital at 9½ A. M.

At 8 P. M. the Convention assembled in the Hall of the House of Representatives, together with members of the Assembly and ladies and gentlemen of Hartford. The retiring President, E. K. Hunt, M. D., addressed the Convention on "Public and Benevolent Institutions and Movements, with which the Connecticut Medical Society has been prominently identified."

On motion, it was resolved, that the thanks of the Convention be tendered to the retiring President, for his able and interesting Address, and that he be requested to furnish a copy for publication.

The Convention then adjourned to the Trumbull House, where the Hartford City Medical Association had provided an elegant and generous entertainment.

After partaking of the luxuries of the season, which "mine host" of the Trumbull House had set forth, the assembly were entertained with speeches, abounding in wit, humor and kindly social feeling, interspersed with much that was worthy to be long remembered. At a seasonable hour the assembly dispersed.

Wednesday Morning, May 25th.

Many of the Fellows and delegates from other societies visited the Athenæum and the Insane Retreat, the latter of which must ever be of peculiar interest to medical men. All were delighted with the order, neatness, and completeness of the arrangements for the care and restoration of the unfortunate inmates of that noble and charitable Institution.

At 9½ A. M., the Convention reassembled at the Hospital, the Vice-President in the chair.

The Chairman nominated Drs. G. W. Russell and J. C. Jackson to act with himself as Committee on the Ives Prize. The nomination was confirmed by the Convention. [For conditions of the Prize, see Appendix E.]

John E. Blake, M. D., of Middletown, then read a Dissertation on "The Mothers of New England."

The thanks of the Convention were voted to Dr. Blake for his very interesting dissertation, and a copy was requested for publication.

The credentials of Hiram Corliss, M. D., as a delegate from the Medical Society of the State of New York having been read, Dr. Corliss was introduced and addressed the Convention.

The Committee on Honorary Membership proposed the names of E. K. Webster, M. D., of Boscawen, N. H., and P. A. Stackpole, M. D., of Dover, N. H., as Honorary Members of the Society. The Report was accepted, and the names were ordered to be placed on the list for consideration at the next Convention.

The following persons proposed last year were then elected Honorary Members of the State Society, viz.:

John Green, M. D., Worcester, Mass.
 Thomas Sanborn, M. D., Newport, N. H.
 William Pierson, M. D., Orange, N. J.
 Arthur Ward, M. D., Belleville, N. J.
 Hiram Corliss, M. D., Washington, N. Y.

Dr. Quest, of Western Virginia, was then introduced and addressed the Convention.

The Committee to nominate delegates to the American Medical Association for 1866, reported the following names, and the gentlemen so nominated were elected, viz.:

N. B. Ives, M. D., of New Haven,
 Isaac G. Porter, M. D., of New London,
 Charles Woodward, M. D., of Middletown,
 B. B. North, M. D., of Cornwall.

Voted, That delegates appointed to attend the American Medical Association who find it impracticable to attend, may appoint substitutes and APPLY to the SECRETARY for CREDENTIALS for SUCH SUBSTITUTES.

Resolved, That the thanks of the Convention are tendered to the Proprietors of the Wadsworth Athenæum, the Superintendent of the Retreat for the Insane, the Principal of the Asylum for the Deaf and Dumb, the Colt's Arms Manufacturing Company, and the Woodruff and Beach Iron Works, for the kind invitation to visit their respective establishments.

Dr. C. M. Carlton of Norwich, read an interesting Report of two operations for strangulated hernia. Remarks were made by Dr. Ellsworth, who stated that death sometimes occurs in from nine to twelve hours after strangulation. Hence the doctor agreed with the Reporter in the expediency of early operations.

On motion, the Report of Dr. Carlton was referred to the Committee of Publication.

On motion, the thanks of the Convention were voted to the Medical Profession of Hartford for the generous and pleasant entertainment provided last evening at the Trumbull House.

On motion, the Convention adjourned to meet in New Haven at 3 P. M., the fourth Wednesday in May, 1866.

Attest,

M. C. WHITE, *Secretary*.

OFFICERS OF THE SOCIETY,
FOR 1865-66.

PRESIDENT.

NATHAN B. IVES, M. D., OF NEW HAVEN.

VICE-PRESIDENT.

ISAAC G. PORTER, M. D., OF NEW LONDON.

TREASURER.

JAMES C. JACKSON, M. D., OF HARTFORD.

SECRETARY.

MOSES C. WHITE, M. D., OF NEW HAVEN.

STANDING COMMITTEES.

Committee on Examination.

NATHAN B. IVES, M. D., *ex officio*.
SIDNEY W. ROCKWELL, M. D.
GILBERT H. PRESTON, M. D.
WM. B. DeFOREST, M. D.
P. W. ELLSWORTH, M. D.
H. N. BENNETT, M. D.

Committee to Nominate Physician to Retreat for the Insane.

WILLIAM SCOTT, M. D.
A. W. BARROWS, M. D.
J. G. BECKWITH, M. D.
HENRY PIERPONT, M. D.
GURDON W. RUSSELL, M. D.

*Committee to Nominate Professors in the Medical Institution of
Yale College.*

DAVID A. TYLER, M. D.
SIDNEY W. ROCKWELL, M. D.
CHARLES F. SUMNER, M. D.
S. G. RISLEY, M. D.
S. T. SALISBURY, M. D.

Committee of Publication.

MOSES C. WHITE, M. D., *ex officio*.
A. W. BARROWS, M. D.
G. W. BURKE, M. D.
C. L. IVES, M. D.
L. S. WILCOX, M. D.

Committee on Registration.

LUCIAN S. WILCOX, M. D.
HENRY PIERPONT, M. D.
B. H. CATLIN, M. D.

MEMBERS OF THE SOCIETY.

HONORARY MEMBERS.

*FELIX PASCALIS,	-	-	-	New York City.
JAMES JACKSON,	-	-	-	Boston, Mass.
*JOHN C. WARREN,	-	-	-	Boston, Mass.
*SAMUEL L. MITCHELL,	-	-	-	New York City.
*DAVID HOSACK,	-	-	-	New York City.
*WRIGHT POST,	-	-	-	New York City.
*BENJAMIN SILLIMAN,	-	-	-	New Haven.
*GEORGE M'CLELLAN,	-	-	-	Philadelphia, Pa.
*JOHN MACKIE,	-	-	-	Providence, R. I.
*CHARLES ELDREDGE,	-	-	-	East Greenwich, R. I.
*THEODRIC ROMEYN BECK,	-	-	-	Albany, N. Y.
*JAMES THACHER,	-	-	-	Plymouth, Mass.
EDWARD DELAFIELD,	-	-	-	New York City.
JOHN DELAMATER,	-	-	-	Cleveland, Ohio.
*WILLIAM P. DEWEES,	-	-	-	Philadelphia, Pa.
*JOSEPH WHITE,	-	-	-	Cherry Valley, N. Y.
JACOB BIGELOW,	-	-	-	Boston, Mass.
WALTER CHANNING,	-	-	-	Boston, Mass.
*PHILLIP SYNG PHYSIC,	-	-	-	Philadelphia, Pa.
*LEWIS HEERMAN,	-	-	-	U. S. Navy.
*DANIEL DRAKE,	-	-	-	Cincinnati, Ohio.
*HENRY MITCHELL,	-	-	-	Norwich, N. Y.
NATHAN RYNO SMITH,	-	-	-	Baltimore, M. D.
*VALENTINE MOTT,	-	-	-	New York City.
*SAMUEL WHITE,	-	-	-	Hudson, N. Y.
REUBEN D. MUSSEY,	-	-	-	Cincinnati, Ohio.
*WILLIAM TULLY,	-	-	-	Springfield, Mass.
RICHMOND BROWNELL,	-	-	-	Providence, R. I.

* Deceased.

*WILLIAM BEAUMONT, -	-	St. Louis, Mo.
SAMUEL HENRY DICKSON,	-	Philadelphia, Pa.
*SAMUEL B. WOODWARD,	-	Northampton, Mass.
*JOHN STEARNS, - - -	-	New York City.
*STEPHEN W. WILLIAMS,	-	Deerfield, Mass.
*HENRY GREEN, - - -	-	Albany, N. Y.
*GEORGE FROST, - - -	-	Springfield, Mass.
WILLARD PARKER, - - -	-	New York City.
*BENAJAH TICKNOR,	-	U. S. Navy.
ALDEN MARCH, - - -	-	Albany, N. Y.
*AMOS TWITCHELL, - - -	-	Keene, N. H.
CHARLES A. LEE, - - -	-	New York City.
*DAVID S. C. H. SMITH,	-	Providence, R. I.
*JAMES M. SMITH, - - -	-	Springfield, Mass.
HENRY D. BULKLEY,	-	New York City.
J. MARION SYMS, - - -	-	New York City.
*JOHN WATSON, - - -	-	New York City.
FRANK H. HAMILTON,	-	Brooklyn, L. I.
ROBERT WATTS, - - -	-	New York City.
J. V. C. SMITH, - - -	-	Boston, Mass.
O. WENDELL HOLMES,	-	Boston, Mass.
JOSEPH SARGENT, - - -	-	Worcester, Mass.
MASON F. COGSWELL,	-	Albany, N. Y.
FOSTER HOOPER, - - -	-	Fall River, Mass.
THOMAS C. BRINSMADE,	-	Troy, N. Y.
GEORGE CHANDLER, - - -	-	Worcester, Mass.
GILMAN KIMBALL, - - -	-	Lowell, Mass.
JAMES McNAUGHTON, - - -	-	Albany, N. Y.
USHER PARSONS, - - -	-	Providence, R. I.
*S. D. WILLARD, - - -	-	Albany, N. Y.
JOHN WARE, - - -	-	Boston, Mass.
EBENEZER ALDEN, - - -	-	Randolph, Mass.
B. FORDYCE BARKER,	-	New York City.
JOHN G. ADAMS, - - -	-	New York City.
JARED LINSLEY, - - -	-	New York City.
A. J. FULLER, - - -	-	Bath, Me.
SAMUEL H. PENNINGTON,	-	Newark, N. J.
FREDERICK N. BENNETT,	-	Orange, N. J.

* Deceased.

THOMAS W. BLATCHFORD,	-	Troy, N. Y.
THOMAS C. FINNELL,	- - -	New York City.
N. C. HUSTED,	- - - -	New York City.
JACOB P. WHITTEMORE,	- - -	Chester, N. H.
JOHN GREEN,	- - - -	Worcester, Mass.
THOMAS SANBORN,	- - - -	Newport, N. H.
WILLIAM PIERSON,	- - -	Orange, N. J.
ARTHUR WARD,	- - - -	Belleville, N. J.
HIRAM CORLISS,	- - -	Washington, N. Y.

Candidates for Honorary Membership.

E. K. WEBSTER, M. D.,	- - -	Boscawen, N. H.
P. A. STACKPOLE, M. D.,	- - -	Dover, N. H.

ORDINARY MEMBERS.

The names of those who have been Presidents are in Capitals.

HARTFORD COUNTY.

S. L. CHILDS, M. D., of East Hartford, Chairman.

P. M. HASTINGS, M. D., of Hartford, Clerk.

HARTFORD , Henry Holmes, S. B. Beresford, G. B. Hawley, G. W. Russell, P. W. Ellsworth, E. K. HUNT, J. S. Butler, J. C. Jackson, A. W. Barrows, Thomas Miner, William Porter, John F. Wells, William R. Brownell, P. M. Hastings, Edward Brinley, George Clary, W. H. Tremaine, Lucian S. Wilcox, Henry S. Stearns, Samuel H. Hall, S. C. Preston, I. W. Lyon, Daniel Pall.	ENFIELD , Thompsonville, L. S. Pease, Edward F. Parsons.
BERLIN , E. Brändegge.	FARMINGTON , Asabel Thompson, Frank Wheeler, Charles Carrington.
BLOOMFIELD , Henry Gray.	PLAINVILLE , G. A. Moody.
BRISTOL , Roswell Hawley.	GRANBY , North, Francis F. Allen.
BURLINGTON , William Elton, 2d.	GLASTENBURY , H. O. Bunce.
CANTON , Collinsville, R. H. Tiffany.	SOUTH GLASTENBURY , C. E. Hammond.
EAST GLASTENBURY , Sabin Stocking, C. A. Sears.	MANCHESTER , William Scott.
EAST GRANBY , Chester Hamlin.	NEW BRITAIN , B. N. Comings, S. W. Hart.
EAST HARTFORD , S. L. Childs, H. K. Olmsted, Edward R. Brownell.	ROCKY HILL , R. W. Griswold.
EAST WINDSOR HILL , Sidney W. Rockwell, William Wood.	SIMSBURY , Tariffville, G. W. Sanford.
Warehouse Point , Marcus L. Fisk.	WESTOGUE , R. A. White.
	SOUTHINGTON , Julius S. Barnes, N. H. Byington, F. A. Hart.
	SUFFIELD , Aretus Rising, O. W. Kellogg.
	WEST GRANBY , Justus D. Wilcox.
	WEST HARTFORD , Edward Brace.
	WETHERSFIELD , E. F. Cook, A. S. Warner, R. Fox.
	WINDSOR , A. Morrison, S. A. Wilson.
	WINDSOR LOCKS , Samuel W. Skinner, Levi Jewett.

NEW HAVEN COUNTY.

WORTHINGTON HOOKER, M. D., of New Haven, Chairman.

H. W. E. MATTHEWS, M. D., Clerk.

NEW HAVEN, Sam. Punderson, A. S. Monson, NATHAN B. IVES, E. H. Bishop, Levi Ives, P. A. Jewett, David L. Daggett, Geo. O. Sumner, David A. Tyler, Henry Bronson, E. A. Park, S. G. Hubbard, W. J. Whiting, H. W. E. Matthews, C. A. Lindsley, Worthington Hooker, T. H. Totten, John Nicoll, Caleb H. Austin, Moses C. White, H. Pierpont, J. H. Beecher, L. J. Sanford, Chas. L. Ives, Edward Bulkley, Jr., Wm. B. DeForest, Frederick L. Dibble, T. Beers Townsend, Evelyn L. Bissell, Thomas N. DeBowes, Timothy H. Bishop, Charles W. Sheffrey, Eli W. Blake, Henry A. DuBois, Francis Bacon, C. O. Stockman, J. H. Beecher, J. W. Barker, Geo. A. Ward, Charles A. Gallagher.	CHESHIRE, A. J. Driggs. DERBY, Charles H. Pinney. BIRMINGHAM, Ambrose Beardsley. GUILFORD, Joel Canfield, Alvan Talcott. HAMDEN, Edwin D. Swift. MADISON, D. M. Webb. MERIDEN, West Meriden, B. H. OATLIN, Asa H. Churchill. MILFORD, Hull Allen, L. N. Beardsley, Thomas Dutton. NAUGATUCK, J. D. Mears, John W. Lawton, Frank Tuttle. NORTH BRANFORD, Sheldon Beardsley. NORTH HAVEN, R. F. Stillman. ORANGE, West Haven, H. W. Painter. OXFORD, Lewis Barnes. SEYMOUR, Thomas Stoddard, S. C. Johnson, Joshua Kendall.
Fair Haven, Charles S. Thomson, Wm. M. White, William H. Thomson.	SOUTHBURY, A. B. Burritt.
BETHANY, Asa C. Woodward, Edward P. Woodward.	South Britain, N. C. Baldwin.
BRANFORD, H. V. C. Holcombe, Newton B. Hall.	WALLINGFORD, Nehemiah Banks. WATERBURY, G. L. Platt, John Deacon, G. E. Perkins, Philo G. Rockwell, Thomas Dougherty, Alfred North.

NEW LONDON COUNTY.

ISAAC G. PORTER, M. D., of New London, Chairman.

ORRIN E. MINER, M. D., of Noank, Clerk.

NEW LONDON, Nathaniel S. Perkins, Isaac G. Porter, William W. Miner, D. P. Francis, Robert A. Manwarring, Robert McCurdy Lord, L. P. Weaver.	Noank, Orrin E. Miner. LERANON, Ralph E. Green.
NORWICH, Richard P. Tracy, Erastus Osgood, Elijah Dyer, Elisha Phinney, A. B. Halls, Edwin Bentley, Daniel F. Gulliver, Lewis S. Paddock, Chas. M. Carlton.	LEDYARD, Gales Ferry, Albert T. Chapman. MONTVILLE, John C. Bolles. MYSTIC, Mason Manning, N. M. Tribou, A. W. Nelson.
BOZRAH, Samuel Johnson.	OLD LYME, Richard Noyes.
COLCHESTER, Ezekiel W. Parsons, Fredk Morgan, Melancthon Storrs.	PRESTON, Eleazar B. Downing.
FRANKLIN, ASHBEL WOODWARD.	STONINGTON, George E. Palmer, William Hyde, Jr.
GROTON, Mystic River, A. W. Coates, John Gray.	Mystic Bridge, E. F. Coates. Uncasville, Samuel E. Maynard.

FAIRFIELD COUNTY.

SAMUEL S. NOYES, M. D., of New Canaan, Chairman.

SAMUEL SANDS, of Darien, Clerk.

FAIRFIELD, S. P. V. R. Ten Breck.	NORWALK, John A. McLean, Ira Gregory, Samuel Lynes, John W. McLean.
GREENFIELD, RUFUS BLAKEMAN.	South Norwalk, M. B. Pardee.
SOUTHPORT, Justus Sherwood.	RIDGEFIELD, O. S. Hickok.
BRIDGEPORT, D. H. Nash, H. L. W. Burritt, Wm B. Nash, Robert Hubbard, H. N. Bennett, Elijah Gregory.	STAMFORD, N. D. Haight, Lewis R. Hurlbutt, W. H. Trowbridge.
BROOKFIELD, A. L. Williams.	North Stamford, George W. Birch.
DANBURY, E. P. Bennett, William C. Bennett.	STRAITFORD, Wm. T. Shelton, James Baldwin, R. C. McEwen.
DARIEN, Samuel Sands.	TRUMBULL, George Dyer.
GREENWICH, James H. Hoyt.	WESTPORT, George Blackman, David S. Burr.
HUNTINGTON, James H. Shelton.	WILTON, Frank N. H. Young.
MONROE, Roger M. Gray.	
NEW CANAAN, Samuel S. Noyes, Lewis Richards.	

WINDHAM COUNTY.

HARVEY CAMPBELL, M. D., of Voluntown, Chairman.

SAMUEL HUTCHINS, M. D., of West Killingly, Clerk.

WINDHAM, Chester Hunt, E. Huntington.	Central Village, Charles H. Rogers.
ASHFORD, John H. Simmons.	POMFRET, Hiram Holt, Lewis Williams.
BROOKLYN, James B. Whitecomb, Wm. Woodbridge.	PUTNAM, H. W. Hough, Daniel B. Plympton.
CANTERBURY, Elijah Baldwin, Joseph Palmer.	SCOTLAND, Calvin B. Bromley.
CHAPLIN, Orrin Witter.	PLAINFIELD, Moosup, Wm. A. Lewis.
HAMPTON, Dyer Hughes, Jr.	THOMPSON, Lowell Holbrook, John McGregor, Charles Hosford.
KILLINGLY, Justin Hammond.	VOLUNTOWN, Harvey Campbell.
South Killingly, Daniel A. Hovey.	WOODSTOCK, Lorenzo Marcy.
West Killingly, Samuel Hutchins.	North Woodstock, Asa Witter.
East Killingly, Edwin A. Hill.	West Woodstock, Milton Bradford.
PLAINFIELD, WM. H. COGSWELL.	WINDHAM, Willimantic, Fred. Rogers.

LITCHFIELD COUNTY.*

JOSIAH G. BECKWITH, M. D., of Litchfield, Chairman.

HENRY DAVIS, M. D., of Bethlehem, Clerk.

LITCHFIELD, J. G. BECKWITH, H. W. Buell, D. E. Bostwick.	BRIDGEWATER, Horace Judson.
Northfield, D. B. W. Camp.	NORTH CANAAN, Ithamar H. Smith, Albert A. Wright.
BETHLEHEM, Henry Davis.	CANAAN, South, John A. Gillett.

* Republished from the old list without revision by the County Clerk.

CORNWALL, West Cornwall, Samuel W. Gold, Edward Sanford.	SHARON, Ralph Deming, William W. Knight.
HARWINTON, G. B. Miller.	TORRINGTON, Wolcottville, Erastus Bancroft, Jeremiah W. Phelps.
MORRIS, Garry H. Miner.	WARREN, John B. Derickson.
NEW MILFORD, Gaylordsville, G. H. St. John.	WASHINGTON, Remus M. Fowler.
NORFOLK, Wm. W. Welch, John H. Welch.	New Preston, Sidney H. Lyman, Edward P. Lyman.
PLYMOUTH, Samuel T. Salisbury.	WINCHESTER, West Winsted, James Welch, John W. Bidwell.
Plymouth Hollow, Wm. Woodruff.	WOODBURY, Charles H. Webb, Harmon W. Shove.
ROXBURY, Myron Downes.	
SALISBURY, Lakeville, Benjamin Welch, William Blasell, Henry M. Knight.	

MIDDLESEX COUNTY.

CHARLES WOODWARD, M. D., of Middletown, Chairman.

SYLVESTER W. TURNER, M. D., of Chester, Clerk.

MIDDLETOWN, Chas. Woodward, Elisha B. Nye, George W. Burke, John E. Blake, Rufus Baker.	ESSEX, Alanson H. Hough, Charles H. Hubbard.
CHATHAM, Middle Haddam, A. B. Worthington.	HADDAM, Miner C. Hazen.
CHESTER, S. W. Turner.	KILLINGWORTH, A. J. Webster.
CLINTON, Denison H. Hubbard.	OLD SAYBROOK, Asa H. King.
CROMWELL, Ira Hutchinson.	PORTLAND, George O. Jarvis, G. C. H. Gilbert.
DURHAM, R. W. Mathewson, W. R. Griswold.	SAYBROOK, Deep River, Edwin Bidwell, Nehemiah Nickerson.
EAST HADDAM, Asa M. Hol., Datus Williams.	WESTBROOK, Horace Burr.

TOLLAND COUNTY.

WM. H. RICHARDSON, M. D., of Mansfield, Chairman.

GILBERT H. PRESTON, M. D., of Tolland, Clerk.

TOLLAND, Oliver K. Isham, G. H. Preston.	Mansfield Depot, Norman Brigham.
BOLTON, Charles F. Sumner.	SOMERS, Orson Wood.
COVENTRY, Eleazar Hunt.	STAFFORD, Wm. N. Clark.
South Coventry, Timothy Dimock, Henry S. Dean.	West Stafford, J. C. Blodgett.
ELLINGTON, J. A. Warren.	Stafford Springs, C. B. Newton.
HEBRON, Orrin C. White.	Staffordville, S. F. Pomeroy.
MANSFIELD, Wm. H. Richardson.	VERNON, N. Gregory Hall.
Mansfield Centre, Earl Swift, O. B. Griggs.	Vernon Depot, A. R. Goodrich.
	Rockville, Stephen G. Risley, Francis L. Dickinson.

SUMMARY OF ORDINARY MEMBERS FOR 1
REPORTED FOR THE YEAR ENDING APRIL 1, 1865.

	Total.	Deaths.
Hartford County, - - - - -	66	2
New Haven County, - - - - -	77	
New London County, - - - - -	36	1
Fairfield County, - - - - -	35	1
Windham County, - - - - -	29	0
Litchfield County, - - - - -	35	0
Middlesex County, - - - - -	23	0
Tolland County, - - - - -	21	0
	322	6

NOTE.—Former Fellows of the Connecticut Medical Society are *permanent members* of the Annual Convention, having the privilege of attending all meetings and performing all the duties of Fellows, except voting. All the members of the Society are invited to be present at the meetings of the Convention.

DEATHS OF MEMBERS DURING THE YEAR ENDING MAY 1, 1865.

New London County.

N. M. Tribou, M. D., of Mystic, died November 28, 1864, of Perforation of the Bowels, aged 31 years, 2 months and 27 days.

New Haven County.

Isaac Goodsell, M. D., of Woodbridge, died July, 1864, aged 86 years.

Jonathan Knight, M. D., of New Haven, died August 25, 1864, of Peritoneal Inflammation, aged 74 years, 11 months and 21 days.

Hartford County.

Joseph Olmsted, M. D., of Warehouse Point, died August 9, 1864, of Malignant Erysipelas, aged 44 years.

Horatio Gridley, M. D., of Hartford, died November 9, 1864, of Paralysis, aged 72 years.

Fairfield County.

David Silliman Burr, M. D., of Westport, died February 1, 1865, of Phthisis Pulmonalis, aged 36 years, 8 months and 17 days.

Windham County.

Gideon F. Barstow, M. D., of Putnam, died June 5, 1864, aged 48 years, 5 months and 12 days.

Middlesex County.

A. J. Webster, M. D., of Killingworth, died January 1, 1864, of Erysipelas, aged 28 years, 2 months and 4 days.

LIST OF ADDRESSES AND DISSERTATIONS

DELIVERED IN CONVENTION.



- 1793 President's Address, by Dr. Leaveritt Hubbard.
- 1794 Prize Essay on Autumnal Bilious Fever, by Dr. S. H. P. Lee.
- 1794 Prize Essay on the Properties of Opium, by Dr. G. Shepherd.
- 1795 Eulogy on Dr. L. Hubbard, by Dr. Eneas Monson, President.
- 1795 Prize Essay on the preparation of Antimony, by Dr. F. P. Ouviere.
- 1795 Prize Essay on the Different Species of Colic, by Dr. T. Betts.
- 1796 Prize Essay on the Contagion of Yellow Fever, by Dr. F. P. Ouviere.
- 1796 Prize Essay on Cynanche Tonsillaris, by Dr. S. H. P. Lee.
- 1796 Prize Essay on the Most Eligible Mode of Increasing Medical Knowledge in this State, by Dr. Lewis Collins.
- 1796 Prize Essay on the same subject, by Dr. Gideon Shepherd.
- 1798 History of a case of Billious Concretion, by Dr. L. Hopkins.
- 1798 An Essay, by Dr. Jared Potter.
- 1799 A Dissertation, by Dr. Thaddeus Clark.
- 1800 A Dissertation on Lunacy, by Dr. Nathaniel Dwight.
- 1804 Essay on the Stafford Mineral Waters, by Dr. S. Willard.
- 1812 Essay on the necessity of a Hospital for Lunatics in this State, by Dr. Nathaniel Dwight.
- 1817 Dissertation on the Deleterious Effects of Ardent Spirits, by Dr. W. R. Fowler.
- 1818 On Ergot, by Dr. William Buel.
- 1820 Dissertation on Typhus Fever, by Dr. Thomas Miner.
- 1821 Dissertation on Uterine Hemorrhage, by Dr. Samuel Rockwell.
- 1822 Dissertation on the Yellow Fever at Middletown, by Dr. William Tully.
- 1823 Dissertation by Dr. Dyer T. Brainerd.

- 1829 Dissertation on extra-uterine Conception, by Dr. Geo. Sumner.
- 1830 Dissertation on Diseases of the Ear, by Dr. Charles Hooker.
- 1835 Dissertation on the Vitality of the Blood, by Dr. Benjamin Welch, Jr.
- 1836 Influence of Moral Emotions on Disease, by Dr. E. H. Bishop.
- 1837 An Address by the President, Dr. Thomas Miner.
- 1837 A Dissertation on Scarlet Fever, by Dr. Archibald Welch.
- 1838 A Dissertation on Spinal Irritation, by Dr. Isaac G. Porter.
- 1839 A Dissertation on the Mental Qualifications necessary to a Physician, by Dr. Henry Bronson.
- 1840 A Dissertation on the Advantages of Prompt and Efficient Practice in Acute Diseases, by Dr. Richard Warner.
- 1841 An Address by the President, Dr. Silas Fuller.
- 1841 A Dissertation on Insanity as a subject of Medical Jurisprudence, by Dr. Amariah Brigham.
- 1842 A Dissertation on Uterine Irritation, by Dr. Chas. Woodward.
- 1843 An Address by the President, Dr. Elijah Middlebrook.
- 1843 A Dissertation on Phlebitis, by Dr. Pinckney W. Ellsworth.
- 1845 A Dissertation on the Respect due to the Medical Profession and the Reasons that it is not awarded by the Community, by Dr. Worthington Hooker.
- 1845 A Dissertation on Laryngismus Stridulus, by Dr. N. B. Ives.
- 1845 Prize Essay on Scarlatina, by Dr. P. W. Ellsworth.
- 1846 A Dissertation, Practical Observations on Typhus Fever, by Dr. Theodore Still.
- 1847 A Dissertation on the Importance of a Medical Organization and the advantages resulting from it, by Dr. E. K. Hunt.
- 1848 A Dissertation on Some Forms of Non-Malignant Disease of the Cervix Uteri, by Dr. B. Fordyce Barker.
- 1849 An Address by the President, Dr. Archibald Welch.
- 1849 A Dissertation on Hygiene, by Dr. Alvan Talcott.
- 1850 A Dissertation on Medical Jurisprudence, by Dr. J. C. Hatch.
- 1851 An Address by the President, Dr. George Sumner, on the Early Physicians of Connecticut.
- 1853 An Address by the President, Dr. Rufus Blakeman, on the Early Physicians of Fairfield County.
- 1853 A Dissertation on Popularizing Medicine, by Dr. S'l Beach.
- 1854 A Dissertation on Diseased Cervix Uteri, by Dr. Wm. B. Casey.

- 1855 A Dissertation on Registration as the Basis of Sanitary Reform, by Dr. Stephen G. Hubbard.
- 1857 An Address by the President, Dr. Benjamin H. Catlin, on the Connecticut Medical Society.
- 1857 A Dissertation on the Medical Profession, by Dr. Benj. D. Dean.
- 1858 An Address by the President, Dr. Benjamin H. Catlin, on the Claims of the Regular Medical Profession to the Confidence of the Community.
- 1859 An Address by the President, Dr. Ashbel Woodward, being an Historical Account of the Connecticut Medical Society.
- 1859 A Dissertation on the Issue, by Dr. Rufus Baker.
- 1860 An Address by the President, Dr. Ashbel Woodward, on Medical Ethics.
- 1860 A Dissertation on Hygiene, by Dr. A. B. Haile.
- 1861 An Address by the President, Dr. Ashbel Woodward, on Life.
- 1861 A Dissertation on Hereditary Predisposition, by Dr. J. B. Lewis.
- 1862 An Address by the President, Dr. Josiah G. Beckwith, on Medical Progress.
- 1862 A Dissertation, being a Review of the present state of the question of Spontaneous Generation, by Dr. M. C. White.
- 1863 An Address by the President, Dr. Josiah G. Beckwith, on the Dignity and Grandeur of the Medical Profession.
- 1863 A Dissertation on Logic applied to Medical Science, by Dr. J. C. Jackson.
- 1864 An Address by the President, Dr. E. K. Hunt, on Inert Practice in Disease.
- 1864 A Dissertation on Scarlatina, by Dr. P. M. Hastings.
- 1865 An Address by the President, Dr. E. K. Hunt, on Public and Benevolent Institutions and Movements, with which the Connecticut Medical Society has been Prominently Identified.
- 1865 A Dissertation on the Mothers of New England, by Dr. J. E. Blake.
- 1865 Prize Essay on Prophylaxis as it relates to Phthisis Pulmonalis.

APPENDIX A.

Report of the Committee on Examination.

An adjourned meeting of the Board of Examination convened at the Medical Institution, New Haven, July 26, 1864.

There were present on the part of the Connecticut Medical Society, Ebenezer K. Hunt, M. D., President, of Hartford; Louis Barnes, M. D., of Oxford; Gilbert H. Preston, M. D., of Tolland; William B. DeForest, M. D., of New Haven; Sidney W. Rockwell, M. D., of East Windsor Hill; and on the part of Yale College, Professors Worthington Hooker, M. D., Charles A. Lindsley, M. D., and Stephen G. Hubbard, M. D.

Six candidates, after having submitted Theses and past Examinations, satisfactory to the Board, were recommended for the Degree of Doctor of Medicine, viz.:

AUGUSTUS HUGGINS ABERNETHY, Bridgeport, "Stone in the Bladder."

JOHN DUTTON BRUNDAGE, Bridgewater, "Phthisis Pulmonalis."

FRANK GALLAGHER, New Haven, "Scarlatina."

WILLIAM HENRY HINE, Waterbury, "Rheumatic Fever."

GEORGE PARKINSON, Canada, "Phthisis Pulmonalis."

CHARLES HENRY ROWE, A. B., Farmington, "Pneumonia."

The Committee met for the Annual Examination January 11th, 1865, and continued in session two days.

There were present on the part of the Connecticut Medical Society, Ebenezer K. Hunt, M. D., President, Louis Barnes, M. D., Gilbert H. Preston, M. D., William B. DeForest, M. D., Sidney W. Rockwell, M. D.; and on the part of Yale College, Professors Worthington Hooker, Samuel W. Johnson, Stephen G. Hubbard, Charles A. Lindsley, Francis Bacon, Leonard J. Sanford.

Eleven candidates, after Examination, were recommended for the Degree of Doctor of Medicine, viz.:

WILLIAM DEXTER ANDERSON, A. B., Boston, "Valedictory."

JAMES GULICK BIRCH, Newburgh, New York, "Variola."
 HERBERT MARTIN BISHOP, New London, "Croup."
 DANIEL CARROLL LEAVENWORTH, New Haven, "Laryngitis."
 GEORGE FRANCIS LEWIS, Norfolk, "Diphtheria."
 MALCOMB MACFARLAN, Medical Cadet, U. S. A., "Malaria."
 WILLIAM ANDERSON MITCHELL, A. B., Columbia College, Brooklyn, New York, "Albuminuria."
 DAVID G. OVERAND, Springfield, Mass., "Typhoid Fever."
 HENRY AUGUSTUS PAGE, Holyoke, Mass., "Cholera Infantum."
 O. F. TREADWELL, A. B., New Haven, "Gonorrhea."
 WILLIAM WITTER, Canterbury, Ct., "Enteric Fever."

Most of the candidates passed their Examination very creditably to themselves and their teachers, the greater number to the entire satisfaction of, and received the unanimous vote of the Board; also the commendation of the President. A few of the number were not as well prepared as could have been desired, being deficient in some branches, and in one case of entire failure the candidate was unanimously rejected. A considerable number were deficient in chemistry, not, it is believed, from any fault of the learned and highly distinguished teacher in that department, but from a want of a knowledge of the elements of the science, to have prepared them to understand and profit by his teachings.

The Commencement Exercises on Thursday evening were attended by a large audience of ladies and gentlemen, in the Medical College.

The Valedictory Address was given by Dr. William Dexter Anderson, of the graduating class, and the Annual Address to the Candidates by Isaac G. Porter, M. D., of New London, on "Medical Life in Retrospect," which was listened to with profound attention by the audience. At the close of the exercises, the Degrees were conferred by President Woolsey.

S. W. Rockwell, M. D., was appointed to report the proceedings of the Board to the Connecticut Medical Society.

In concluding our Report, if in place, we would respectfully say, that the Board of Examiners met at their annual meeting under circumstances of peculiar solemnity. Perhaps for the first time for the last half century, it marked the absence of the late venerable Professor of Surgery, for many years the beloved and acknowledged head of the profession in the State. In no place in his preëminently useful life, will he be more missed than as a

member of the Board. Gray-haired men throughout the State now engaged in the battle of life, remember him with loving memory, as the kind friend and great teacher. Surely we may ask, "Our Fathers, where are they—do the Prophets live forever?"

The Board adjourned to meet at eleven o'clock, July —, 1865.

S. W. ROCKWELL, *Secretary*.

APPENDIX B.

Report of Nominating Committee.

To the Connecticut Medical Society :

Your Committee, appointed to nominate Professors in the Medical Institution of Yale College, would respectfully Report :—

That a meeting of the joint Committee of the Corporation of Yale College, and the Connecticut Medical Society, was held agreeably to the call of the President of Yale College, at his rooms in the College in New Haven, July 25th, 1864.

There were present on the part of the Corporation of Yale College, Theodore Woolsey, D. D., LL. D., Jeremiah Day, D. D., LL. D., and Benjamin Silliman, M. D., LL. D. ; and on the part of the Connecticut Medical Society, Ralph Deming, M. D., Gideon L. Platt, M. D., David A. Tyler, M. D., Sidney W. Rockwell, M. D., and Charles F. Sumner, M. D.

President Woolsey, Chairman. Gideon L. Platt was appointed Secretary.

After consultation, on motion of Dr. Tyler, a vote by ballot was taken to nominate a Professor to fill a vacancy (occasioned by the resignation of Jonathan Knight, M. D., Professor of Surgery) in the Medical Institution of Yale College, which resulted in the unanimous nomination of Francis Bacon, M. D., to fill said vacancy.

On motion, adjourned *sine die*.

GIDEON L. PLATT, *Secretary*.

APPENDIX C.

Report of the "Russell Prize" Committee.

The Committee to whom was assigned the duty of selecting subjects for the above-named Prize, and awarding the Premium therefor, respectfully Report:—

That but two Dissertations—both on the same subject, *Prophylaxis as it relates to Phthisis Pulmonalis*—were offered for the Prize. One of them was regarded as inadmissible; the other, bearing the device, "Præoccupare potius quam Sanare," as, on the whole, entitled to the award; which, in virtue of their authority, the Committee made.

On opening the sealed envelope accompanying the Dissertation, and bearing the same device, the author's name was found to be George W. Burke, M. D., of Middletown.

E. K. HUNT; H. M. KNIGHT, C. L. IVES,	}	Committee.
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HARTFORD, May 23, 1865.

APPENDIX D.

Report of the State Medical Board.

The State Medical Board would respectfully report—

That there have been held since April, 1864, by order of His Excellency the Governor, four sessions, two in Hartford, and two in New Haven, and that they have examined eleven gentlemen, of whom eight were recommended for appointment as Assistant Surgeons.

And they have also, from time to time, recommended a number of Assistant Surgeons to be promoted as Surgeons.

As our labors are now probably near an end, it may be proper to give a summary of them.

Since our appointment June 27, 1861, we have held thirty-one sessions, eighteen in Hartford, and thirteen in New Haven; and have examined one hundred and thirty-five gentlemen, of whom twenty-three have been recommended for appointment as Surgeons, and eighty-two as Assistant Surgeons.

In addition, there has been considerable correspondence with the medical officers in the field, and with persons desiring to present themselves as candidates.

GURDON W. RUSSELL,
P. A. JEWETT,
ASHBEL WOODWARD.

May, 1865.

APPENDIX E.

Report of the Ives Prize Committee.

The Committee to whom was assigned the duty of selecting subjects for Dissertations, and of awarding the premium for that which they shall decide to be the best, submit the following:

I. Cerebro-Spinal Meningitis.

II. An Inquiry into the Therapeutic value of Mercury and its Preparations.

Dissertations on the foregoing subjects must be transmitted to the Chairman, on or before the first Wednesday of April, 1866.

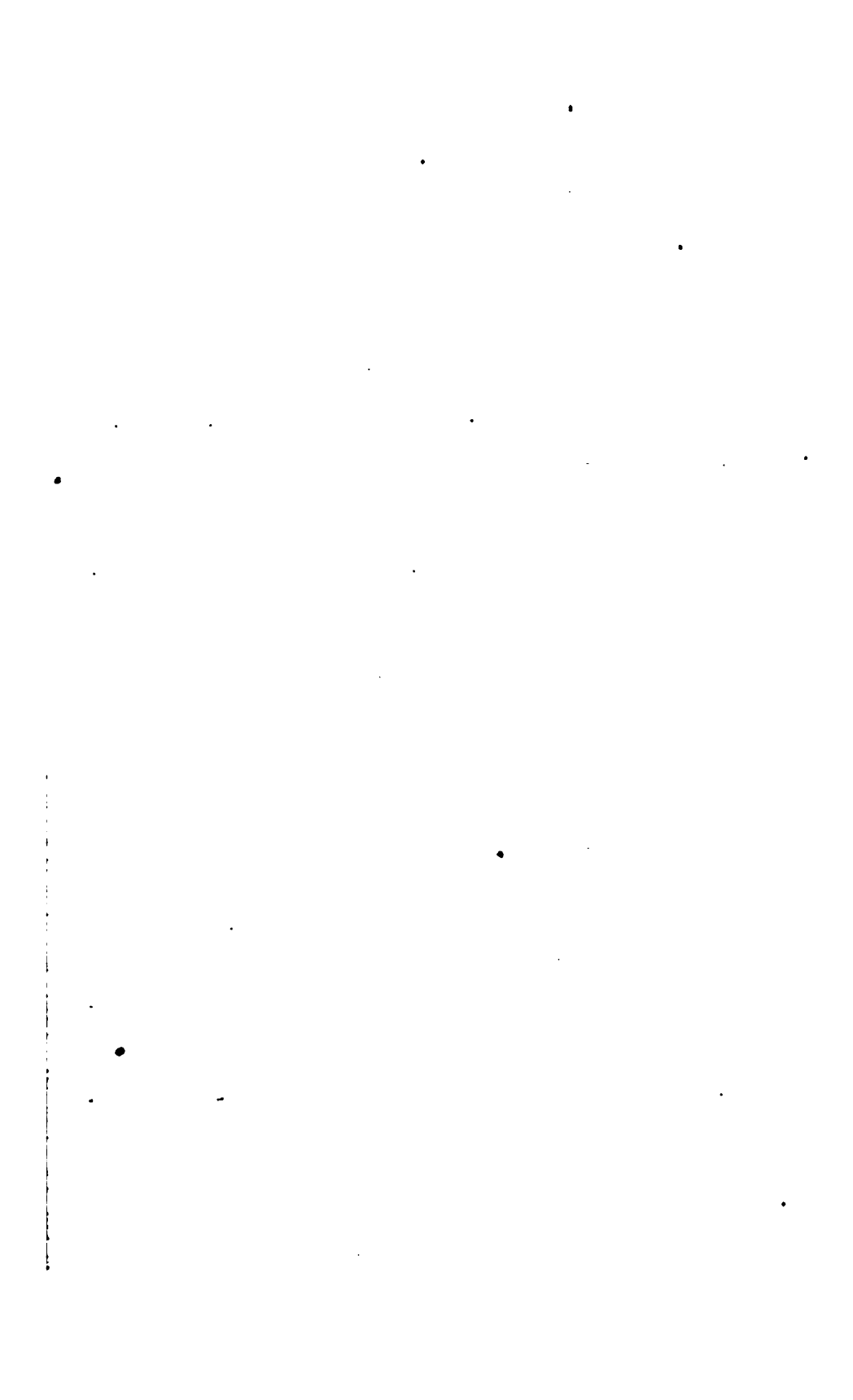
Competition for the prize will be limited to practitioners of medicine now residents of this State, and the author of the successful Dissertation, on either of the subjects named, will receive the premium of Fifty dollars.

Each Dissertation must be accompanied by a sealed packet, on which shall be written some device or sentence, and within shall be enclosed the author's name and residence. The same device or sentence is to be written on the Dissertation to which the packet is attached.

Unsuccessful Dissertations will be retained by the Chairman, subject to the order of their authors, for one year.

The Committee reserve the right to withhold the premium in case no Dissertation received shall be considered by them to be worthy of the prize.

ISAAC G. PORTER,
GURDON W. RUSSELL, } *Committee.*
JAMES C. JACKSON.



APPENDIX F.

*Act of Incorporation of the Connecticut Medical Society.—
Act in relation to the Medical Institution of Yale College.
By-Laws and Resolutions.*

AN ACT

TO INCORPORATE THE CONNECTICUT MEDICAL SOCIETY.

SEC. 1. *Be it enacted by the Senate and House of Representatives in General Assembly convened,* That the Physicians and Surgeons now members of the Connecticut Medical Society, and all Physicians and Surgeons who shall be associated with them in pursuance of the provisions of this act, shall be and remain a body politic and corporate, by the name of **THE CONNECTICUT MEDICAL SOCIETY**; and by that name they and their successors shall and may have perpetual succession; shall be capable of suing and being sued, pleading and being impleaded, in all suits of whatever name or nature; may have a common seal, and may alter the same at pleasure; and may also purchase, receive, hold and convey any estate, real or personal, to an amount not exceeding one hundred thousand dollars.

SEC. 2. The members of the Society shall meet, annually, in their respective counties, at such places as have been or may hereafter be agreed upon by them, (on the second Thursday of April;) and shall elect from among themselves a chairman, clerk, and such other officers as they may find necessary; and being thus organized, shall thereupon immediately elect, by ballot, of their own number, in each county five, except in the counties of Middlesex and Tolland, and in each of those counties three Fellows, to have the superintendence and management of the Society. And the members of the Society, in their respective county meetings, shall have power to adjourn said meetings from time to time, and to hold special meetings as they may judge expedient; and may adopt such regulations for their own government, and for the promotion of Medical Science, as they may think proper, not repugnant to the by-laws of the Society.

SEC. 3. The Fellows thus chosen at the several county meetings, shall meet together, on the second Wednesday of May, annually, at such time and place as has been, or may be designated by them; and being thus assembled, shall elect by ballot, from among any of the members of the Society, a President, Vice President, Treasurer and Secretary of the Society, who shall hold their office one year and until others be chosen, and shall, by virtue of their office, be Fellows of

the Society for the time being; and shall have the same power, privileges and authority as if originally elected such by the members of the Society.*

SEC. 4. The President, Vice President, Treasurer, Secretary and Fellows thus chosen shall be known and called by the name of "THE PRESIDENT AND FELLOWS OF THE CONNECTICUT MEDICAL SOCIETY;" a majority of whom, legally assembled together, shall be a quorum for the transaction of any business; and shall have power to make by-laws for the regulation and government of the Society, and for the promotion of the objects of the same, not repugnant to the laws of the United States or of this State; to expel any member of the Society for misconduct; to admit honorary members; to make rules for the admission of members of the Society, and for their dismissal from the same; to lay a tax upon the members of the Society not exceeding two dollars in each year, to be collected by the clerks of the respective county meetings and to be paid over to the Treasurer of the Society; to dispose of the moneys thus raised, and all other property of the Society in such a manner as they may think proper, to promote the objects and interests of the Society.

SEC. 5. At all the meetings of the Fellows for the transaction of business, the President of the Society, or, in case of his absence, the Vice President, shall preside; and in case of the absence of the President and Vice President, the Fellows present may elect one of their own number as President for the occasion.

SEC. 6. The President of the Society, or in case of his death, or absence out of the State, the Vice President, on any special occasion shall have power to call a meeting of the President and Fellows, at such time and place as he may think proper, upon giving twenty days' notice in two newspapers printed in this State; and in case of the death, resignation or inability of the President, Vice President, Treasurer or Secretary of the Society, the vacancy made thereby may be filled for the remainder of the year, by the Fellows, at any legal meeting duly assembled.

SEC. 7. It shall be the duty of the several clerks of the county meetings, in their respective counties, to collect and pay over to the Treasurer of the Society all such taxes as shall from time to time be laid by the President and Fellows, upon the members of the Society as aforesaid; and for that purpose said clerks may procure a warrant under the hand of a justice of the peace against such member or members of the Society as shall neglect or refuse to pay the taxes so imposed upon them as aforesaid; which warrant any justice of the peace is hereby empowered to issue, and said warrant shall be directed to the sheriff or his deputies of the county in which such delinquent member or members reside; and said sheriff or either of his deputies on receiving such warrant may there-with proceed to enforce the collection of such tax or taxes, in the same manner, and with the addition of the same fees, as are by law prescribed and allowed to the collectors of town taxes. And if any of the clerks of the county meetings shall neglect or refuse to collect the taxes entrusted to him to collect, by the time the same are made payable, or having collected the same, shall neglect or refuse to pay the same over to the Treasurer of the Society, such Treasurer may cause a suit or suits to be instituted against such delinquent in the name of the Society,

* The President and Fellows of the Connecticut Medical Society, are ex officio Members of the General Hospital Society of Connecticut, by the charter of that Society.

before any court proper to try the same, and the same to pursue to final judgment; and the clerks shall be allowed and receive a compensation of five per centum on all moneys collected by them respectively, and paid to the Treasurer of the Medical Society.

[Sec. 8. No physician or surgeon who shall have commenced practice since the year one thousand eight hundred, or who shall hereafter commence practice, shall be entitled by law to recover any debt or fees for such practice, unless he shall have been duly licensed by some Medical Society or College of Physicians; and all persons licensed to practice physic and surgery and practicing within this State shall of course be members of the Medical Society. *Repealed, June, 1842.*]

Approved, June 5th, 1834.

AN ACT

IN ALTERATION OF AN ACT ENTITLED "AN ACT TO INCORPORATE THE CONNECTICUT MEDICAL SOCIETY."

Be it enacted by the Senate and House of Representatives in General Assembly convened, That the several county meetings of the Connecticut Medical Society may change the time of holding said meetings to such time as they may severally appoint; and that so much of the act to incorporate the Connecticut Medical Society as is contrary to this act be, and is hereby repealed.

Approved, June 12th, 1847.

AN ACT

IN RELATION TO THE CONNECTICUT MEDICAL SOCIETY.

Be it enacted by the Senate and House of Representatives in General Assembly convened, That the annual meeting of the Fellows of the Connecticut Medical Society shall hereafter be held on the fourth Wednesday of May, annually, instead of the second Wednesday of May, as now required by law; and no acceptance by said Society shall be necessary to make this act operative.

Approved, June 12th, 1855.

AN ACT

IN RELATION TO THE MEDICAL INSTITUTION OF YALE COLLEGE.

SEC. 1. *Be it enacted by the Senate and House of Representatives in General Assembly convened,* The Medical Institution established in Yale College, pursuant to an agreement between the President and Fellows of Yale College, and the President and Fellows of the Medical Society of Connecticut, shall be known and acknowledged by the name of THE MEDICAL INSTITUTION OF YALE COLLEGE.

Sec. 2. There shall be established in the Institution not less than four nor more than six Professorships; and the price of the tickets for the course of lectures on each branch, shall not exceed twelve dollars and fifty cents. There shall be a joint committee of an equal number of persons appointed by the President and Fellows of Yale College and the President and Fellows of the Connecticut Medical Society, who shall make a nomination; from which nomination the Professors shall be chosen by the President and Fellows of the College.

Sec. 3. Every medical student shall be required to attend to the study of physic and surgery, for two years, with some medical or surgical professor or practitioner, who is in respectable standing; provided he shall have been graduated at some college; otherwise to study three years; to have acquired in addition to a good English education, a competent knowledge of the Latin language and of the principles of Natural Philosophy; to have arrived at the age of twenty one years; to be of good moral character; and to deliver to the committee of examination a satisfactory dissertation upon some subject in medicine or surgery or the auxiliary branches. And every medical student shall attend one course of the lectures, under the professors of the Medical Institution of Yale College or of some other public medical institution, previously to his being admitted to an examination for a license; and the course or courses of lectures which he shall attend, may be included within the time he is required to study. Provided, nevertheless, that upon the recommendation of the Medical Society in each county, one meritorious and necessitous person from such county shall annually be allowed the privilege of attending one course of lectures gratis, and if any of the counties should fail to recommend as above, the President and Fellows of said society may fill up the vacancy. It shall be the duty of the clerks of the several county meetings to report to the President and Fellows the names of the persons whom they shall agree to recommend; and the Secretary of the Society shall transmit the said names, together with such as the President and Fellows may add, agreeably to the above provision, to the Medical Professors of Yale College.

Sec. 4. Each candidate for the degree of Doctor in Medicine shall be required to attend two courses of lectures, at the Medical Institution of Yale College, or at some other public medical institution where a similar course of public instruction is pursued; which degree, upon the recommendation of the committee of examination, shall be conferred by the President of the College, and the diploma signed by him and countersigned by the examining committee, or a majority of them; and the fee for graduation shall be fifteen dollars. The President of the College may also confer the honorary degree of Doctor in Medicine, upon those persons whom the President and Fellows of the Medical Society shall recommend for that purpose.

Sec. 5. The Committee of examination for the practice of physic and surgery, shall consist of the Professors of the Medical Institution of the College and an equal number of the members of the Medical Society appointed by the President and Fellows of the same; and the President of the Medical Society shall be ex-officio president of the examining committee, with a vote at all times, and a casting vote when there is a tie; and in case of the absence of the President, a president pro tempore shall be appointed by the members of the examining committee chosen by the Medical Society, with the same powers; which committee or a

majority of them shall possess the power, and they only, of examining for a license; and all licenses to practice physic or surgery shall be signed by the President of the Medical Society, and countersigned by the Secretary of the committee of examination; which Secretary they are hereby authorized to appoint; and the fee for each license shall be four dollars, and shall accrue to the Medical Society. All licenses heretofore signed by the Clerk or Secretary of the examining committee, shall be valid and have the same effect as if they had been signed by the examining committee, any law to the contrary notwithstanding.

SEC. 6. There shall be but one examination in the year, which shall be immediately at the close of the lectures; when a candidate is prevented by sickness from attending at that time, he may afterwards be examined by the medical professors; and such examination, together with their certificate thereof, shall entitle him to the same privileges as though his examination had been by said committee.

SEC. 7. All medical students who shall have attended two courses of the lectures in the Medical Institution, shall have the privilege of attending all future courses gratis.

And be it further enacted, That the act entitled "An act to incorporate the Connecticut Medical Society, and to establish the Medical Institution of Yale College," and all acts in addition to, and in alteration thereof, be, and the same are hereby repealed; Provided that all proceedings had, and all obligations imposed, in pursuance of the acts hereby repealed, shall have the same effect as though said acts were still in force; and all taxes heretofore laid pursuant to said acts, may be collected according to the provisions of said acts, in the same manner as though said acts had not been repealed.

Approved, June 5th, 1834.

AN ACT

IN ADDITION TO AN ACT ENTITLED "AN ACT IN RELATION TO THE MEDICAL INSTITUTION OF YALE COLLEGE."

Be it enacted by the Senate and House of Representatives in General Assembly convened, That the act entitled "An act in relation to the Medical Institution of Yale College," be, and hereby is altered, by adding to the third section of said act, the words following:

Provided, furthermore, that no person shall be recommended as aforesaid, to a gratuitous course of lectures, unless such person shall have previously attended one course of lectures in the Medical Institution of Yale College.

Approved, June 29th, 1856.

BY-LAWS.

§ I.—COUNTY MEETINGS.

1. The Members of the Society, at any county meeting legally holden, may, by a major vote of the members present, admit to membership in the Society any person regularly licensed to practice physic and surgery, and practicing in said county, who shall make application for that purpose.

2. They may, by a similar vote, dismiss from the Society any Member who shall remove from this State, or who shall leave the profession for other pursuits.

3. They may also, if they deem it expedient, recommend to the President and Fellows of the Society, for dismission from the same, any Member residing in their respective Counties, who shall apply for such dismission by a written request to that effect delivered to the Clerk of the County Meeting, at least ten days before the time of holding any legal County Meeting; and also any Member who shall refuse or neglect to pay taxes; and upon the approval of such recommendation by the President and Fellows in Convention, the connection between such Member and the Society shall be dissolved. *Provided*, that no Member shall be honorably dismissed from the Society until all his taxes shall have been paid.

4. All violation of the By-Laws of the Society, or of the Medical Police adopted by the Society, or of the Rules and Regulations passed by the County Meetings, in conformity with the By-Laws of the Society, may be prosecuted and tried by the Members of the Society, in their respective County Meetings, under the following regulations, viz.:

The Member accusing another of a violation of any of the before mentioned Regulations, shall make a statement in writing of the transaction which he deems a misdemeanor, and lay the same before a Fellow of the Society; and such Fellow shall issue a notification to the accused, to appear before the next County Meeting, stating the time when, and the place where, it is to be held, to defend, if he sees fit, against such accusation. A copy of such accusation and notification shall be left with the accused, or at his last usual place of abode, at least twelve days previous to the time of holding the next County Meeting. And the accuser shall cause the said accusation and notification to be served and returned to the Clerk of the County Meeting, on or before the day of their sitting; and the offender, upon conviction, may be punished by admonition, by suspension from the privileges of the Society for a period not exceeding two years, or by expulsion from the Society. *Provided*, that no sentence of expulsion shall be valid until confirmed by the President and Fellows in Convention.

5. The several County Meetings are authorized to make such regulations as their local circumstances may require: *Provided*, that such regulations be not contrary to the laws of the State, or the By-Laws of this Society.

6. When a new Clerk is chosen in any of the Counties, his predecessor shall deliver over to him all the records and papers appertaining to the office, retaining copies of the same, if he think proper.

The Clerks of the several County Meetings shall take the following oath, viz.:

"You, A. B., being chosen Clerk of the Meeting of the Medical Society for the

County of ———, do swear that you will record all votes of said meeting, and give true copies of the same when thereto requested, *so help you God.*"

7. The Clerks shall transmit the names and places of residence of the Fellows, and of the person recommended for a gratuitous course of lectures, to the Secretary, immediately after the election in April, that the same may be published at least a week before the Convention. They shall also forward to the Secretary, and a duplicate copy to the Treasurer, on or before the first day of the Convention, the names of the members in their respective Counties, and their place of residence; and those who fail in the performance of this duty, shall be subject to a fine of five dollars, to be collected by the Treasurer.

The expenses incurred by the Clerks of the Counties in collecting any tax or taxes, shall be canceled and paid by the Treasurer.

§ II.—MEMBERS.

8. Each Member of the Society shall have free access to the records of the Society, and of the County Meeting to which he belongs; and may take attested copies thereof if he request them.

9. Former Fellows of the Connecticut Medical Society are *permanent members* of the Annual Convention, having the privilege of attending all meetings and performing all the duties of Fellows, except voting. All the Members of the Society are invited to be present at the meetings of the Convention.

10. The payment of the annual tax shall be optional with all Members over sixty years of age.

11. If any Member of the Society shall make, vend, or publicly recommend any nostrum or patent medicine, and be thereof convicted, he shall be suspended from the privileges of the Society, or expelled.

12. No Member of the Society shall hold professional consultation or intercourse with any other than licensed Physicians and Surgeons, in regular standing.

13. It shall be the duty of each Member of this Society to accuse any other Member of the Society, for such misdemeanors as he deems contrary either to the By-Laws, Medical Police, or Rules and Regulations adopted by the Society. And the accuser shall make a statement in writing, of the transactions which he deems a misdemeanor, and lay the same before a Fellow of the Society; and such Fellow shall issue a notice to the accused, to appear before the President and Fellows at their next Convention, stating the time and place of their sitting, to defend, if he see cause, against said accusation. A copy of said accusation and notification shall be left with the accused, or at his last usual place of abode, at least twelve days previous to the next Convention of the President and Fellows. And the accuser shall cause the said accusation and notification to be served and returned to the President and Fellows on the first day of their sitting.

[*Whereas*, Doubts have existed as to the construction of membership after absence from this State—

Resolved, That the privileges and obligations of membership revert to a regular physician on returning to the State. *Passed, May, 1864.*]

§ III.—OFFICERS, FELLOWS, &c.

14. In place of the old debenture system, which is abolished, the taxes of the President and Fellows and Dissertator in attendance at the Convention, shall be abated.

15. The Fellows of the Society shall be a Committee of Abatements in their respective Counties.

16. Each person receiving a license to practice from this Society, shall pay the sum of four dollars to the Clerk of the Committee on Examination, who shall account with the Treasurer for the same.

17. The Secretary shall be required to take the following oath, viz. :

" You, A. B., being chosen Secretary of the Connecticut Medical Society, do swear that you will record all votes of the President and Fellows, and give true copies when thereto requested, and faithfully perform all the duties relating to said office, *so help you God*."

It shall be the duty of the Secretary to record all the transactions of the President and Fellows of the Connecticut Medical Society in their Conventions, give true copies of the same when thereto requested, conduct their correspondence, and have the custody of the seal of the Society.

The Secretary is also instructed to send, each year, an extra copy of the Proceedings of the Convention to each of the Clerks, for the use of the County Meetings; also to send a copy of the Proceedings to other State societies. The Secretary shall be *ex officio* chairman of the Committee of Publication.

He is also requested to put up, each year, in at least three public houses in the town in which the Convention meets, a written notice of the place of meeting, at least one day before the sitting of the Convention.

18. It shall be the duty of the Treasurer to keep the moneys of the Society, subject to their orders, and to render annually to the President and Fellows an account of all moneys received and paid by him.

He shall be allowed ten dollars for his services, on his account being accepted, at the end of each year.

No debenture bill shall be paid by the Treasurer, that is more than seventeen years old.

19. The President of the Society and the Clerk of the Committee of Examination, are authorized to grant a new License, free of expense, to any person who has been previously licensed, according to the laws of this State, upon satisfactory proof being exhibited to them that such previous license has been lost.

20. The Committee of Examination, the Committee to nominate Professors in the Medical Institution, and the Committee to nominate the Physician to the Retreat for the Insane, shall be chosen by ballot. All other Committees shall be appointed by the Presiding Officer of the Convention. Only two persons shall be elected on each of the Standing Committees each year; the first two on the list to be dropped, and the two chosen to be placed at the bottom; but any person may be reelected.

21. The Standing Committees of the Society are requested annually to report to the President and Fellows, whenever they shall have occasion to act in their official capacity.

22. No Member of the Society who is directly or indirectly interested in the manufacture, use or recommendation, or sale of any nostrum or Patent Medicine, shall be eligible to any office.

23. It shall be the duty of the Fellows of the several counties to present to the State Convention short obituary sketches of deceased Members, which shall be revised, amended or condensed by the Committee of Publication, as they deem expedient.

24. The meetings of the Society shall be held alternately in Hartford and New Haven.

25. Whenever the President shall see fit to call a special session of the Convention, besides advertising as now provided, he shall also send a notice to each Member, of the time and place of meeting, which notice shall be mailed at least one week previous to the meeting of such Convention.

26. It shall be the duty of the President of this Society to deliver an Address to the Convention annually.

Resolved, That the practice of furnishing a dinner from the funds of this Society is inconsistent with the true interests of the profession, and ought to be discontinued. *Passed, May, 1864.*

Resolved, That the *surplus* of income of the Society, after paying current expenses, be devoted to the purchase of valuable medical publications, to be distributed equally to all members *not in arrears*. *Passed, May, 1864.*

Resolved, That the Clerks of the several County Meetings be requested hereafter, in the annual returns, to specify the *names* of paying members. *Passed, May, 1864.*

Resolved, That this Convention recommend to the County Medical Associations that elect five Fellows to the State Convention, that *two of the Fellows be elected for two consecutive years*, and that those Counties electing three Fellows, elect *one Fellow for two consecutive years*. *Passed, May, 1863.*

§ IV.—HONORARY DEGREES AND HONORARY MEMBERSHIP.

Resolved, That the Committee on Honorary Degrees be directed to recommend none who have commenced the practice of medicine since the year 1815. *Passed, May, 1831.*

Resolved, That no Member of this Society shall be recommended to the President and Fellows of Yale College for the Honorary Degree of Doctor of Medicine, until such Member shall have been in the practice of medicine for a period of twenty-five years, at least, and no more than *one* shall be recommended from this State in any one year, and such Degree shall be conferred solely on the ground of distinguished merit and honor of the individual. *The Committee on Honorary Degrees in 1856, recommended the adoption of the above Resolution, and the Report of the Committee was accepted.*

Resolved, That the names of candidates for the Honorary Degree of Doctor of Medicine and Honorary Membership, be published in the Proceedings of the

Society, and be not acted upon for one year subsequent to the time such nominations are made. *Passed, May, 1860.*

§ V.—OF MEDICAL STUDENTS.

1. Before any person can be admitted into the office of a Physician, as a Student of Medicine, he shall furnish evidence of good moral character, and shall be examined by the preceptor and one of the Fellows of this Society; the examination to be upon the subjects of English education, and Greek and Latin languages. If found qualified, he is to receive a certificate to that effect, and be enrolled as a regular student of medicine. *Passed, May, 1847.*

2. The following certificate of studies shall be required of all candidates for examination for a Degree:

I hereby certify that _____ has pursued the study of Medicine with me for _____ to _____ and that he recited regularly on [here insert the branches pursued] during the above mentioned time.
_____, Physician.

Resolved, That it is the opinion of this Convention, that in case the student recommended from any County is not necessitous and meritorious, it has full power to declare that a vacancy exists, and may proceed to fill the same. *Passed, May, 1846.*

§ VI.—MISCELLANEOUS RESOLUTIONS.

Resolved, That the several County Meetings are hereby instructed to continue their investigations in relation to the manufacture, sale, recommendation and use of nostrums or Patent Medicines, by their Members, and to present for trial any Member so offending. *Passed, May, 1853.*

Resolved, That the several County Meetings be requested to investigate the subject of Members of the Society consulting with irregular practitioners, and enforce the by-law in such case made and provided. *Passed, May, 1857.*

Resolved, That it shall be the duty of the Clerks of the several Counties to report to the Secretary of the State Convention, on the first day of its session, the names, ages and diseases of the Members of this Society who may have died during the year preceding the 1st of April in each year, in their several County Societies, and that the Secretary be directed to append these statistics to the catalogue of Members of the Society in the published proceedings of the Annual Convention. *Passed, May, 1849.*

Resolved, That the Clerks be required to comply with the by-law which makes it their duty to report delinquents to the Convention, and the amount due from each respectively, stating also in such report what notice he has given such delinquent of his indebtedness to the Society, and that the same be read in open Convention. *Passed, May, 1852.*

Resolved, That this Society require of the several County Meetings to dismiss all Members who persistently refuse or neglect to pay their annual taxes. *Passed May, 1860.*

DUTIES OF COUNTY CLERKS.

To warn County Meetings.

To record the proceedings of the County Meetings.

To collect the taxes and pay the same to the Treasurer.

To transmit to the Secretary a list of the elected Fellows, and the person recommended as a candidate for a gratuitous course of lectures in the Yale Medical College, immediately after the Annual County Meetings, for publication.

To return to the Treasurer the names of Members delinquent on taxes, with the amounts severally due from each, and what notice he has given to each delinquent of his indebtedness, and to specify the names of paying Members.

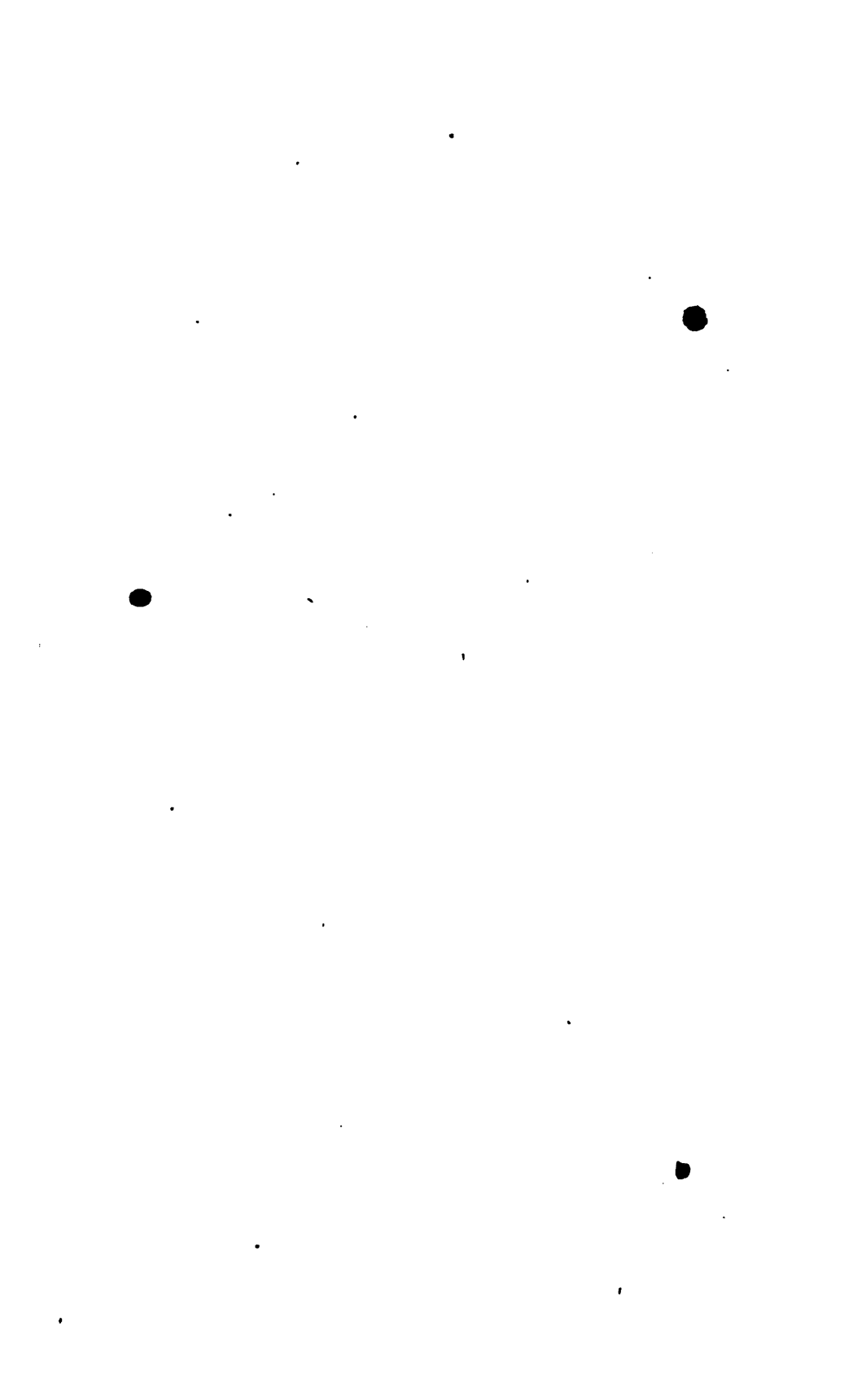
To transmit duplicate lists of the Members of the Society to the Secretary and Treasurer, on or before the first day of the Convention, on penalty of five dollars for each neglect.

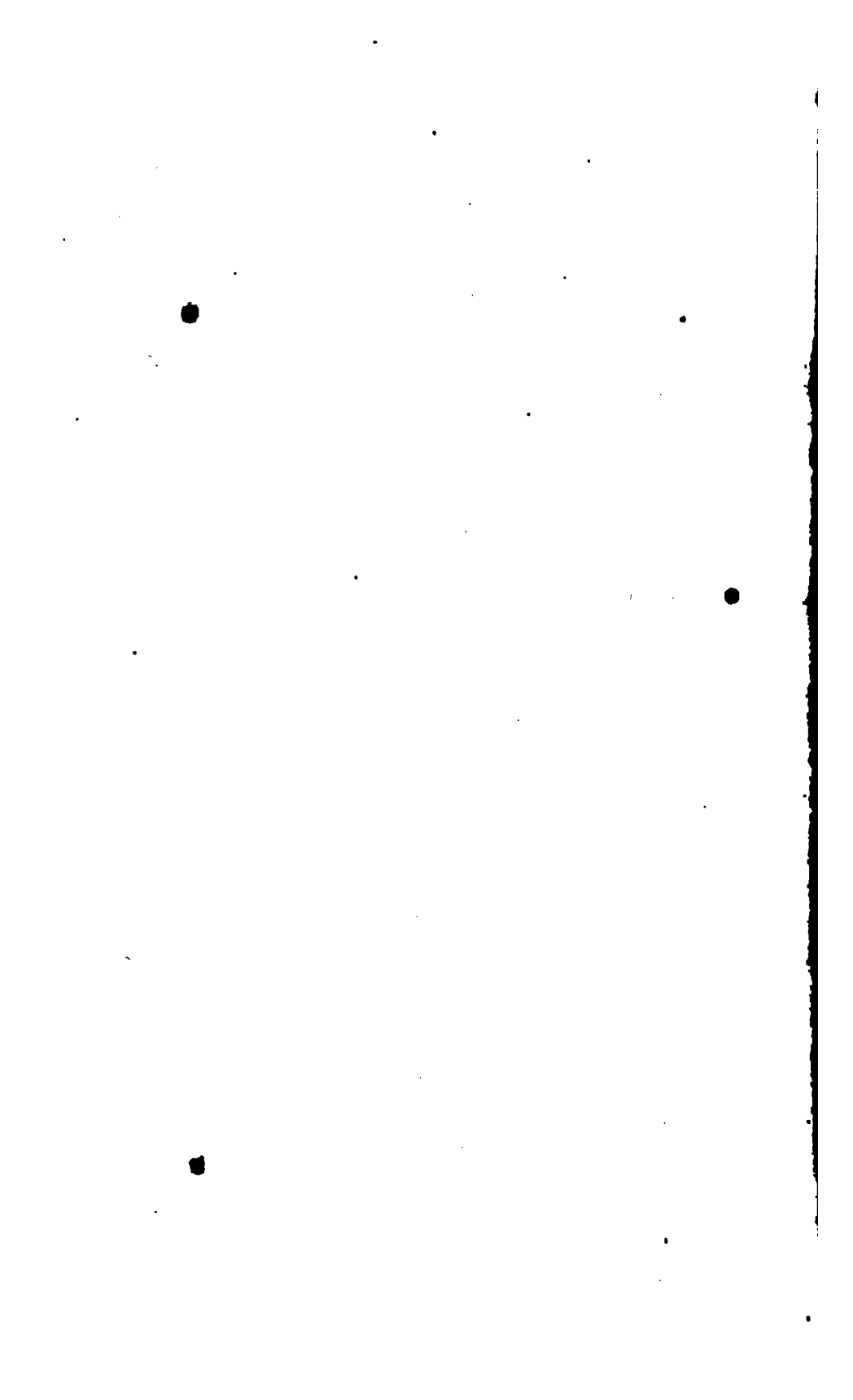
To report to the Secretary of the State Society, on the first day of its Annual Convention, the names, ages, and diseases of the Members of this Society who have died during the year preceding the first of April in each year, in their several County Associations.

RULES OF ORDER.

1. Organization.
2. Certificates of Membership presented and read by the Secretary.
3. Committee on the Election of Fellows.
4. Election of Officers for ensuing year.
5. Unfinished business of previous year disposed of.
6. Reception and reference, without debate, of Communications, Resolves, &c., from the several Counties, and Members of the Convention.
7. Reading Treasurer's Report.
8. Committee to audit the same.
9. Standing Committees appointed.
10. Committee to nominate delegates to the American Medical Association.
11. Committee on Candidates for Gratuitous Course of Lectures.
12. Committee on Honorary Degrees and Honorary Membership.
13. Committee to Nominate Dissertator.
14. President's Address.
15. Reports of Committee appointed on County Communications, Resolves, &c.
16. Reports of Standing Committees.
17. Reports of Committees, in the order in which business was brought forward in Convention.
18. Miscellaneous Business.
19. Literary Exercises.—*a*, Dissertation; *b*, Obituary notices of deceased Members; *c*, Voluntary Communications.







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Pure Wines and Liquors,

for medicinal purposes, for sale in any quantity. I have just received a small invoice of

PURE COGNAC PALE BRANDY,

purchased and imported for me, and **WARRANTED PURE**. Price \$10 per gallon; in bottles, \$2.50 each.

Also, just opened, (July 12th,) one large package of

GENUINE BERMUDA ARROWROOT,

manufactured by James T. Darrell, Warwick Parish, Bermuda, and sent to me direct. 75 cents per pound.

July 12th, 1865.

RATHBUN, Apothecary.

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**N.B.—The next Annual Convention will meet in New Haven, May
23d, 1866, at 3 P. M.**

PROCEEDINGS.

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The *Seventy-fourth* Convention of the Connecticut Medical Society, was held in New Haven, May 23d and 24th, 1866.

The Convention assembled at the Medical College at 3 P. M., May 23d, and was called to order by the Vice President, Isaac G. Porter, M. D. The list of Fellows, as reported by the Clerks of the several County Meetings, was read by the Secretary.

The President appointed Drs. Wm. B. De Forest, G. C. H. Gilbert and Miner C. Hazen a Committee on Credentials.

The Committee on Credentials reported the following persons duly elected as Fellows of the Convention, and the report was accepted, as follows, viz:

## FELLOWS.

### HARTFORD COUNTY.

|                        |                       |
|------------------------|-----------------------|
| P. W. Ellsworth, M. D. | E. C. Hammond, M. D.  |
| R. W. Griswold, "      | Charles Carrington, " |
| H. P. Stearns, "       |                       |

### NEW HAVEN COUNTY.

|                      |                     |
|----------------------|---------------------|
| Henry Bronson, M. D. | B. H. Catlin, M. D. |
| Levi Ives, "         | Wm. B. De Forest, " |
| P. G. Rockwell, "    |                     |

### NEW LONDON COUNTY.

|                        |                    |
|------------------------|--------------------|
| Ashbel Woodward, M. D. | *M. Manning, M. D. |
| C. M. Carleton, "      | A. W. Nelson, "    |
| *L. S. Paddock, "      |                    |

### FAIRFIELD COUNTY.

|                       |                        |
|-----------------------|------------------------|
| A. L. Williams, M. D. | *Elijah Gregory, M. D. |
| Wm. G. Brownson, "    | *Samuel Lynes, "       |
| Wm. C. Bennett, "     |                        |

---

\* Absent.

## LITCHFIELD COUNTY.

Henry M. Knight, M. D.    \*Wm. Bissell, M. D.  
 Josiah G. Beckwith, "    Henry S. Turrill, "  
 Henry Davis, "    "

## MIDDLESEX COUNTY.

Ira Hutchinson, M. D.    Miner C. Hazen, M. D.  
 G. C. H. Gilbert, "    "

## TOLLAND COUNTY.

G. H. Preston, M. D.    O. B. Griggs, M. D.  
 Charles F. Sumner, "    "

## WINDHAM COUNTY.

James B. Whitcomb, M. D.    \*Lowell Holbrook, M. D.  
 Joseph Palmer, "    T. Morton Hills, "  
 John McGregor, "    "

Delegates from other State Medical Societies were received, and their credentials were read by the Secretary. The following gentlemen were introduced at different stages of the session, and addressed the Convention on behalf of their several Societies, viz:

## MEDICAL SOCIETY OF STATE OF NEW YORK.

J. H. Curry, M. D.,    B. P. Staats, M. D.  
 G. J. Fisher, "    "

## MEDICAL SOCIETY OF NEW JERSEY.

R. M. Cooper, M. D.

## NEW HAMPSHIRE MEDICAL SOCIETY.

Albert Smith, M. D.,    E. K. Webster, M. D.

## MAINE MEDICAL ASSOCIATION.

Andrew J. Fuller, M. D.

The following gentlemen were elected officers of the Connecticut Medical Society for the ensuing year, viz:

ISAAC G. PORTER, M. D., PRESIDENT.  
 CHARLES WOODWARD, M. D., VICE-PRESIDENT.  
 JAMES C. JACKSON, M. D., TREASURER.  
 MOSES C. WHITE, M. D., SECRETARY.

It was voted, that the Secretary should telegraph to Dr. Woodward, inform him of his election as Vice-President, and request his attendance in the Convention.

The Vice-President, Dr. C. Woodward, replied by telegraph, thanking the Convention for his election, and stated that his attendance upon a very sick patient prevented his coming to the Convention.

The President then appointed the following Committees, viz :

On Unfinished Business—Drs. A. Woodward, R. W. Griswold, and A. W. Nelson.

On Communications and Resolves from County Meetings—Drs. B. H. Catlin, P. W. Ellsworth, and C. M. Carleton.

On Honorary Degrees and Honorary Membership—Drs. H. Bronson, E. C. Hammond, and Ira Hutchinson.

On Candidates for Gratuitous Course of Lectures—Drs. Philo G. Rockwell, Charles F. Sumner, and G. H. Preston.

To nominate Dissertator and Alternate—Drs. S. G. Beckwith, W. B. DeForest, and Henry Davis.

To nominate Delegates to the American Medical Association—Drs. J. G. Beckwith, H. M. Knight, and G. C. H. Gilbert.

To nominate Delegates to other Societies—Drs. P. W. Ellsworth, C. Carrington, and Wm. B. DeForest.

The oath of office was then administered to the Secretary by Dr. R. W. Griswold, Esq.

The vacancies in the Standing Committees were filled by general ballot, as follows, viz :

|                        |                             |
|------------------------|-----------------------------|
| Ira Hutchinson, M. D., | } Committee of Examination. |
| H. M. Knight, M. D.,   |                             |

|                        |                                      |
|------------------------|--------------------------------------|
| Robert Hubbard, M. D., | } Committee to nominate Physician to |
| G. H. Preston, M. D.,  |                                      |

|                           |                                    |
|---------------------------|------------------------------------|
| E. C. Hammond, M. D.,     | } Committee to nominate Professors |
| James B. Whitcomb, M. D., |                                    |

|  |                          |
|--|--------------------------|
|  | in Yale Medical College. |
|--|--------------------------|

|                            |                             |
|----------------------------|-----------------------------|
| Gurdon W. Russell, M. D.,  | } Committee of Publication. |
| Leonard J. Sanford, M. D., |                             |

|                      |                            |
|----------------------|----------------------------|
| L. S. Wilcox, M. D., | Committee on Registration. |
|----------------------|----------------------------|

The Committee on Candidates for Gratuitous Course of Lectures in Yale College, reported, that New Haven County Meeting had appointed Mr. Thomas T. Minor to receive a gratuitous course of lectures, during the fall and winter of 1866 and 1867; that the other County meetings had made no appointments, and that there were no other applications. The report was accepted and the Committee discharged.

The Committee on Dissertator reported the names of Robert Hubbard, M. D., as Dissertator, and C. M. Carleton, M. D., as Alternate. The report was accepted, and the gentlemen nominated were appointed.

The Committee on Unfinished Business reported that there was no business laid over from last year. Report accepted.

Dr. Tyler, from the Committee on Endowment of the Medical Institution of Yale College, made a report, that the Committee had held several meetings, and appointed agents, and taken other measures, which gave promise of success.

Dr. George F. Barker, being called upon, made a spirited address in regard to the importance of the proposed endowment, showing that a higher and more systematic course of study and lectures, than is now furnished by any Medical College in the United States, is imperatively needed, by the rapid progress of medical science; showing, also, that by united effort, Yale College can easily take this advanced position.

Dr. Tyler resigned his position on the Endowment Committee, and Prof. Francis Bacon, M. D., was appointed to take his place on the Committee.

Prof. F. Bacon, M. D., asked for the appointment of a Committee of Conference, in reference to the propriety of requesting the Legislature to make certain changes in the charter of the Medical Institution of Yale College. Drs. B. H. Catlin, H. P. Stearns, and G. H. Preston, were appointed to confer with the Faculty in regard to the changes desired.

The Committee to nominate Delegates to the American Medical Association, presented the names of Isaac G. Porter, M. D., Charles Woodward, M. D., Nathan B. Ives, M. D., and Wm. B. DeForest, M. D.

On motion, the gentlemen nominated were appointed, with power to appoint substitutes, who may apply to the Secretary for credentials.

Dr. Fisher, Delegate from the N. Y. State Medical Society, was introduced and addressed the Convention.

On invitation of the Convention, Dr. C. M. Carleton, of Norwich, exhibited a Surgical Chair, being an improvement upon the Chair used by Dr. Bigelow, of Boston. Dr. C. explained the arrangements and advantages of the Chair, for fixing the patient in the most convenient position for various surgical operations.

On motion of Prof. F. Bacon, the thanks of the Convention were voted to Dr. Carleton, for bringing the Chair to New Haven, and for exhibiting it to the Convention.

Dr. Catlin, Chairman of the Committee on Resolutions from Counties, reported, that they have received from the New Haven County Meeting, a Preamble and Resolutions in reference to Compulsory Tes-

timony from physicians and surgeons in Court; and Resolutions from Litchfield County Meeting, recommending the appointment of permanent members, and an alteration of the By-Laws in regard to the appointment of Officers of the Convention, which Preamble and Resolutions the Committee would refer to the Convention for their action.

In connection with this subject, Dr. Catlin read a report of his visit as a Delegate to the New York State Medical Society, contrasting the organization of that Society with our own, and advocating the adoption, in the Conn. Med. Soc. of certain features of the N. Y. Society.

The Resolutions of New Haven County Meeting in regard to compulsory testimony, were laid on the table. The Resolution of Litchfield County Meeting, in regard to the election of President and Vice President, were referred to a Committee, consisting of Drs. B. H. Catlin, P. G. Rockwell, and H. M. Knight.

The Committee of Publication made a report of papers presented and recommended for publication, which was accepted.

The Secretary stated that Dr. W. Hooker, Dr. A. Woodward, and Dr. R. W. Mathewson, had presented papers for publication which they were excluded from considering, under the rule requiring all papers designed for publication to be presented to the Committee at least one week before the meeting of the Convention.

On motion, the rule was suspended, and the papers were referred to the consideration of the Committee of Publication.

The Committee of Arrangements announced that the Annual Address would be delivered, at 8 P. M., in the Hall of the House of Representatives, by Dr. Isaac G. Porter, Vice President of last year, as Dr. N. B. Ives, the President, was too infirm to prepare or deliver the Address.

An invitation was received from the New Haven Medical Association, for the Convention to attend a Social Entertainment in Alumni Building immediately after the delivery of the Annual Address. Invitation accepted.

Adjourned to meet in the Hall of the House of Representatives at 8 P. M.

At 8 P. M. the Convention, and a large number of interested auditors, assembled in the Hall of Representatives. The meeting was called to order by the Secretary, and an able and interesting Address was delivered by Dr. Isaac G. Porter, on the Medico-Chirurgical Lessons of the War,

The thanks of the Convention were tendered to Dr. Porter for his interesting Address, and a copy was requested for publication.

*Voted*, That the thanks of the Convention be returned to the House of Representatives for the use of their Hall for the delivery of the Annual Address, last evening.

Adjourned to 8 A. M. Thursday morning.

*Thursday Morning, May 25th.*

The Convention re-assembled at 8 A. M., and was called to order by the President, Isaac G. Porter, M. D. Drs. E. K. Webster, and Prof. Albert Smith, Delegates from New Hampshire, were introduced and addressed the Convention.

The subject of Compulsory Medical Testimony was taken up, and referred to a Committee, consisting of Drs. Whitcomb, Hutchinson, and McGregor, to consider and report to the next Convention. [See Appendix F.]

It being announced that the Homeopaths and Eclectics are urging the Legislature to so alter the Charter of the General Hospital Society as to give them the same privileges as are enjoyed by the Conn. Medical Society, which founded it, Drs. J. G. Beckwith, M. C. White and H. Pierpont, were appointed a Committee to appear before the Committee of the Legislature, and defend the rights of the Connecticut Medical Society. [For Legislative action see Appendix C.]

The Treasurer, J. C. Jackson, M. D., presented his Annual Report of the Finances of the Society, which was referred to an Auditing Committee, consisting of Drs. A. Woodward, J. G. Beckwith, and W. C. Bennett, who reported that they found the Treasurer's Report correct. The report was accepted.

The following is a summary of Treasurer's Report :

|                                                |           |             |
|------------------------------------------------|-----------|-------------|
| May 24, 1865. Balance in the Treasury, -       | \$336.96½ |             |
| Received from Clerks and Ex-clerks, from May   |           |             |
| 24, 1865, to May 22, 1866, including two       |           |             |
| prizes of \$200 each, and one of \$50,         | 881.25    |             |
|                                                | <hr/>     | \$1,218.21½ |
| Disbursements from May 24, 1865, to May 22d,   |           |             |
| 1866, - - - - -                                |           | 336.27½     |
|                                                |           | <hr/>       |
| Balance in the Treasury, May 22, 1866,         |           | \$881.94    |
| Due from Clerks and Ex-clerks, - -             | 1,672.56  |             |
| Deduct two-thirds for abatements, commissions, |           |             |
| bad debts, &c., - - - -                        | 1,115.03  |             |
|                                                | <hr/>     | 557.53      |
|                                                |           | <hr/>       |
| Total of cash and due from clerks, - -         |           | \$1,430.47  |



|                                                         |             |
|---------------------------------------------------------|-------------|
| The Society owes, as stated, for debentures outstanding | 333.12½     |
| Leaving a balance in favor of the Society,              | \$1,106.34½ |
| Balance last year, do. do.                              | 862.82½     |
| Excess of balance over last year,                       | \$243.52    |

On recommendation of the Treasurer and the Auditing Committee, "*All taxes which have been levied on members over sixty years of age, and which are not yet paid, and also, all unpaid taxes levied on members while serving as surgeons or assistant surgeons in the U. S. Army, were abated.*" On similar recommendation, the following accounts against Ex-clerks of the Society, were abated, on account of discrepancies between the accounts of said Ex-clerks and the Treasurer, viz:—S. G. Hubbard, \$6.37½; E. B. Nye, \$9.33½; and J. Nicoll, \$9.

The Treasurer reported, that G. W. Russell, M. D., and P. A. Jewett, M. D., had each given to the Society *Two Hundred Dollars*, (included in the moneys acknowledged above,) which they desire the Society to expend in prizes for Dissertations on subjects interesting to the Profession.

The thanks of the Convention were voted to Doctors Russell and Jewett for their munificent gifts.

B. H. Catlin, M. D., L. J. Sanford, M. D., and H. Bronson, M. D., were appointed a Committee to propose subjects for Dissertations and award Prizes from the funds given to the Society by Drs. Russell and Jewett. [See Appendix B.]

C. L. Ives, M. D., of New Haven, read a Dissertation on "*The Prophylaxis of Phthisis Pulmonalis.*"

The thanks of the Convention were given to Dr. Ives for his valuable Dissertation, and a copy was requested for publication.

The Committee to nominate Delegates to other State Societies, made their report, which was adopted as follows, viz:

To the Medical Society of Maine, C. M. Carleton, M. D., of Norwich; Prof. F. Bacon, M. D., of New Haven.

To the Medical Society of New Hampshire, J. C. Jackson, M. D., of Hartford.

To the Medical Society of Vermont, Ashbel Woodward, M. D., of Franklin.

To the Medical Society of Massachusetts, George A. Ward, M. D., of New Haven; E. W. Blake, M. D., of New Haven.

To the Medical Society of Rhode Island, H. Pierpont, M. D., of

New Haven; G. H. Preston, M. D., of Tolland; Charles F. Sumner, M. D., of Bolton.

To the Medical Society of New York, Prof. L. J. Sanford, M. D., of New Haven; J. G. Beckwith, M. D., of Litchfield; P. G. Rockwell, M. D., of Waterbury.

To the Medical Society of New Jersey, Prof. C. A. Lindsley, M. D., of New Haven; Prof. L. J. Sanford, M. D., of New Haven.

*Voted*, That delegates not able to attend, be authorized to appoint substitutes.

By invitation, Dr. Ephraim Cutter, of Boston, then read a paper on Nebulization of Medicinal Substances, for Bronchial, Oral, and Posterior Nasal Inhalation, and for the Production of Local Anesthesia; describing particularly the method of constructing apparatus for these purposes. The Doctor had previously spent two hours in an adjoining room exhibiting the use of the laryngoscope, showing, to all who chose to see, the posterior nares and the vocal cords in his own person. The Doctor had shown the actual vibration of the vocal cords during speaking and singing. The entire subject of laryngoscopy and nebulization of fluids for inhalation, was thoroughly illustrated.

*Voted*, That the thanks of the Convention be given to Dr. Cutter, for his demonstrations of practical laryngoscopy, and for his interesting essay, and that a copy of the latter be requested for publication in our Proceedings.

Doctors Adams and Bulkley, of New York City, both honorary members, were introduced, and addressed the Convention.

*Voted*, That a tax of Two DOLLARS be laid on each member of the Connecticut Medical Society, payable June 1, 1866.

*Voted*, That the Committee of Examination be allowed to present their report to the Committee of Publication, to be printed with the Proceedings. [See Appendix D.]

It having been ascertained on call of the House that there was not a quorum present, it was

*Voted*, That the subject of creating permanent members and new By-Laws, in regard to the election of officers, be referred to a Committee, consisting of Drs. J. G. Beckwith, H. Bronson, and B. H. Catlin, to report to the next Convention. [See Appendix F.]

The Report of the Ives Prize Committee was presented by Dr. Isaac G. Porter. The Committee had awarded the prize of *Fifty Dollars* to an Essay bearing the motto, "Amicus Plato, Amicus Socrates, sed magis Amica Veritas." On opening the accompanying sealed packet bearing the same motto, it was ascertained that the author is C. L. Ives, M. D., of New Haven. The Report of the Committee was approved. [See Appendix A.]

The Prize Essay was referred to the Committee of Publication.

The Report of the Delegate to the New York Medical Society was referred to the Committee of Publication. [See Appendix E.]

The Committee appointed to confer with the Faculty of the Medical Institution of Yale College, reported in favor of the proposed alterations. The Report was approved, and Drs. F. Bacon, H. Pierpont, and Geo. F. Barker, were appointed a Committee to apply to the Legislature to obtain the changes desired.

[The desired changes were granted by the Legislature, and the amended Charter will be found in Appendix G.]

E. K. Webster, M. D., of Boscawen, N. H., and P. A. Stackpole, M. D., of Dover, N. H., were elected Honorary members of the Society.

*Voted*, That the thanks of the Convention be given to the New Haven Medical Association, for the entertainment furnished last evening.

*Voted*, That the next Convention be called to meet in the City of Hartford, the fourth Wednesday of May, 1867, at 11 A. M.

Attest,

M. C. WHITE, M. D., *Secretary*.

**OFFICERS OF THE SOCIETY.**  
**FOR 1866-67.**

---

**PRESIDENT.**

ISAAC G. PORTER, M. D., OF NEW LONDON.

**VICE-PRESIDENT.**

CHARLES WOODWARD, M. D., OF MIDDLETOWN.

**TREASURER.**

JAMES C. JACKSON, M. D., OF HARTFORD.

**SECRETARY.**

MOSES C. WHITE, M. D., OF NEW HAVEN.

**STANDING COMMITTEES.**

*Committee on Examination.*

WM. B. DEFOREST, M. D.  
P. W. ELLSWORTH, M. D.  
H. N. BENNETT, M. D.  
IRA HUTCHINSON, M. D.  
H. M. KNIGHT, M. D.

*Committee to Nominate Professors in the Medical Institution of  
Yale College.*

CHARLES F. SUMNER, M. D.  
S. G. RISLEY, M. D.  
S. T. SALISBURY, M. D.  
E. C. HAMMOND, M. D.  
JAMES B. WHITCOMB, M. D.

*Committee to Nominate Physician to Retreat for the Insane.*

J. G. BECKWITH, M. D.  
HENRY PIERPONT, M. D.  
GURDON W. RUSSELL, M. D.  
ROBERT HUBBARD, M. D.  
G. H. PRESTON, M. D.

*Committee of Publication.*

MOSES C. WHITE, M. D., *ex-officio*.  
C. L. IVES, M. D.  
L. S. WILCOX, M. D.  
G. W. RUSSELL, M. D.  
L. J. SANFORD, M. D.

*Committee on Registration.*

HENRY PIERPONT, M. D.  
B. H. CATLIN, M. D.  
LUCIAN S. WILCOX, M. D.

# MEMBERS OF THE SOCIETY.

## HONORARY MEMBERS.

|                         |           |                       |
|-------------------------|-----------|-----------------------|
| *FELIX PASCALIS,        | . . . . . | New York City.        |
| JAMES JACKSON,          | . . . . . | Boston, Mass.         |
| *JOHN C. WARREN,        | . . . . . | Boston, Mass.         |
| *SAMUEL L. MITCHELL,    | . . . . . | New York City.        |
| *DAVID HOSACK,          | . . . . . | New York City.        |
| *WRIGHT POST,           | . . . . . | New York City.        |
| *BENJAMIN SILLIMAN,     | . . . . . | New Haven.            |
| *GEORGE M'CLELLAN,      | . . . . . | Philadelphia, Pa.     |
| *JOHN MACKIE,           | . . . . . | Providence, R. I.     |
| *CHARLES ELDREDGE,      | . . . . . | East Greenwich, R. I. |
| *THEODORIC ROMEYN BECK, | . . . . . | Albany, N. Y.         |
| *JAMES THACHER,         | . . . . . | Plymouth, Mass.       |
| EDWARD DELAFIELD,       | . . . . . | New York City.        |
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| *WILLIAM P. DEWEES,     | . . . . . | Philadelphia, Pa.     |
| *JOSEPH WHITE,          | . . . . . | Cherry Valley, N. Y.  |
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| WALTER CHANNING,        | . . . . . | Boston, Mass.         |
| *PHILIP SYNG PHYSIC,    | . . . . . | Philadelphia, Pa.     |
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| *DANIEL DRAKE,          | . . . . . | Cincinnati, O.        |
| *HENRY MITCHELL,        | . . . . . | Norwich, N. Y.        |
| NATHAN RYNO SMITH,      | . . . . . | Baltimore, M. D.      |
| *VALENTINE MOTT,        | . . . . . | New York City.        |
| *SAMUEL WHITE,          | . . . . . | Hudson, N. Y.         |
| REUBEN D. MUSSEY,       | . . . . . | Cincinnati, O.        |
| *WILLIAM TULLY,         | . . . . . | Springfield, Mass.    |
| RICHMOND BROWNELL,      | . . . . . | Providence, R. I.     |
| *WILLIAM BEAUMONT,      | . . . . . | St. Louis, Mo.        |
| SAMUEL HENRY DICKSON,   | . . . . . | Philadelphia, Pa.     |
| *SAMUEL B. WOODWARD,    | . . . . . | Northampton, Mass.    |
| *JOHN STEARNS,          | . . . . . | New York City.        |
| *STEPHEN W. WILLIAMS,   | . . . . . | Deerfield, Mass.      |
| *HENRY GREEN,           | . . . . . | Albany, N. Y.         |

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\* Deceased.

|                                   |                    |
|-----------------------------------|--------------------|
| *GEORGE FROST, - . . . .          | Springfield, Mass. |
| WILLARD PARKER, - . . . .         | New York City.     |
| *BENAJAH TICKNOR, - . . . .       | U. S. Navy.        |
| ALDEN MARCH, - . . . .            | Albany, N. Y.      |
| *AMOS TWITCHELL, - . . . .        | Keene, N. H.       |
| CHARLES A. LEE, - . . . .         | New York City.     |
| *DAVID S. C. H. SMITH, - . . . .  | Providence R. I.   |
| *JAMES M. SMITH, - . . . .        | Springfield, Mass. |
| HENRY D. BULKLEY, - . . . .       | New York City.     |
| J. MARION SYMS, - . . . .         | New York City.     |
| *JOHN WATSON, - . . . .           | New York City.     |
| FRANK H. HAMILTON, - . . . .      | Brooklyn, L. I.    |
| ROBERT WATTS, - . . . .           | New York City.     |
| J. V. C. SMITH, - . . . .         | Boston, Mass.      |
| O. WENDELL HOLMES, - . . . .      | Boston, Mass.      |
| JOSEPH SARGENT, - . . . .         | Worcester, Mass.   |
| MASON F. COGSWELL, - . . . .      | Albany, N. Y.      |
| FOSTER HOOPER, - . . . .          | Fall River, Mass.  |
| THOMAS C. BRINSMADE, - . . . .    | Troy, N. Y.        |
| GEORGE CHANDLER, - . . . .        | Worcester, Mass.   |
| GILMAN KIMBALL, - . . . .         | Lowell, Mass.      |
| JAMES McNAUGHTON, - . . . .       | Albany, N. Y.      |
| USHER PARSONS, - . . . .          | Providence, R. I.  |
| *S. D. WILLARD, - . . . .         | Albany, N. Y.      |
| JOHN WARE, - . . . .              | Boston, Mass.      |
| EBENEZER ALDEN, - . . . .         | Randolph, Mass.    |
| B. FORDYCE BARKER, - . . . .      | New York City.     |
| JOHN G. ADAMS, - . . . .          | New York City.     |
| JARED LINSLEY, - . . . .          | New York City.     |
| A. J. FULLER, - . . . .           | Bath, Me.          |
| SAMUEL H. PENNINGTON, - . . . .   | Newark, N. J.      |
| FREDERICK N. BENNETT, - . . . .   | Orange, N. J.      |
| THOMAS W. BLATCHFORD, - . . . .   | Troy, N. Y.        |
| THOMAS C. FINNELL, - . . . .      | New York City.     |
| N. C. HUSTED, - . . . .           | New York City.     |
| JACOB P. WHITEMORE, - . . . .     | Chester, N. H.     |
| JOHN GREEN, - . . . .             | Worcester, Mass.   |
| THOMAS SANBORN, - . . . .         | Newport, N. H.     |
| WILLIAM PIERSON, - . . . .        | Orange, N. J.      |
| ARTHUR WARD, - . . . .            | Belleville, N. J.  |
| HIRAM CORLISS, - . . . .          | Washington, N. Y.  |
| E. K. WEBSTER, M. D., - . . . .   | Boscawen, N. H.    |
| P. A. STACKPOLE, M. D., - . . . . | Dover, N. H.       |

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\* Deceased.

## ORDINARY MEMBERS.

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*The names of those who have been Presidents are in Capitals.*

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### HARTFORD COUNTY.

WILLIAM SCOTT, M. D., of Manchester, Chairman.

HENRY P. STEARNS, M. D., of Hartford, Clerk.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| HARTFORD, Henry Holmes, S. B. Beresford, G. B. Hawley, G. W. Russell, P. W. Ellsworth, E. K. HUNT, J. S. Butler, J. C. Jackson, A. W. Barrows, Thomas Miner, William Porter, John F. Wells, William R. Brownell, P. M. Hastings, Edward Brinley, George Clary, W. H. Tremaine, Lucian S. Wilcox, Henry P. Stearns, Samuel H. Hall, S. C. Preston, I. W. Lyon, Daniel Pall, E. R. Cutter, H. S. Fuller, John O'Flarity, Nathan Meyer, Chas. R. Hart, Wm. M. Hudson. | Warehouse Point, Marcus L. Fisk.                                |
| BERLIN, E. Brandegee.                                                                                                                                                                                                                                                                                                                                                                                                                                              | ENFIELD, Thompsonville, L. S. Pease, Edward F. Parsons.         |
| BLOOMFIELD, Henry Gray.                                                                                                                                                                                                                                                                                                                                                                                                                                            | FARMINGTON, Asahel Thompson, Frank Wheeler, Charles Carrington. |
| BRISTOL, Roswell Hawley.                                                                                                                                                                                                                                                                                                                                                                                                                                           | Plainville, G. A. Moody.                                        |
| BROADBROOK, E. K. Leonard.                                                                                                                                                                                                                                                                                                                                                                                                                                         | GRANBY, North, Francis F. Allen.                                |
| BURLINGTON, William Elton, 2d.                                                                                                                                                                                                                                                                                                                                                                                                                                     | GLASTENBURY, H. C. Bunce.                                       |
| CANTON, Collinsville, R. H. Tiffany.                                                                                                                                                                                                                                                                                                                                                                                                                               | South Glastenbury, C. E. Hammond.                               |
| EAST GLASTENBURY, Sabin Stocking, C. A. Sears.                                                                                                                                                                                                                                                                                                                                                                                                                     | MANCHESTER, William Scott.                                      |
| EAST GRANBY, Chester Hamlin.                                                                                                                                                                                                                                                                                                                                                                                                                                       | NEWBRITAIN, B. N. Comings, S. W. Hart.                          |
| EAST HARTFORD, S. L. Childs, Edward R. Brownell, H. K. Olmsted.*                                                                                                                                                                                                                                                                                                                                                                                                   | ROCKY HILL, R. W. Griswold.                                     |
| EAST WINDSOR HILL, Sidney W. Rockwell, William Wood.                                                                                                                                                                                                                                                                                                                                                                                                               | SIMSBURY, Tariffville, G. W. Sanford.                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Weatogue, R. A. White.                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SOUTHINGTON, Julius S. Barnes, N. H. Byington, F. A. Hart.      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUFFIELD, Aretus Rising, O. W. Kellogg.                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | WEST GRANBY, Justus D. Wilcox.                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | WEST HARTFORD, Edward Brace.                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | WETHERSFIELD, E. F. Cook, A. S. Warner, R. Fox.*                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | WINDSOR, A. Morrison, S. A. Wilson.                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | WINDSOR LOCKS, Samuel W. Skinner, Levi Jewett.                  |

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\* Asked for dismissal from the Society. Case not decided.



## NEW HAVEN COUNTY.

ELI W. BLAKE, M. D., of New Haven, Chairman.

GEORGE A. WARD, M. D., of New Haven, Clerk.

NEW HAVEN, Samuel Punderson, A. S. Monson, NATHAN B. IVES, E. H. Bishop, Levi Ives, P. A. Jewett, David L. Daggett, George O. Sumner, David A. Tyler, Henry Bronson, E. A. Park, S. G. Hubbard, H. W. E. Matthews, C. A. Lindsley, Worthington Hooker, T. H. Totten, John Nicoll, Caleb H. Austin,\* Moses C. White, H. Pierpont, J. H. Beecher, Leonard J. Sanford, Charles L. Ives, Edward Bulkley, Jr., W. B. DeForest, T. Beers Townsend, George A. Ward, Evelyn L. Bissell, T. H. Bishop, Thomas N. DeBowes, Eli W. Blake, Henry A. DuBois, Francis Bacon, C. O. Stockman, J. W. Barker, Charles A. Gallagher, Chas. S. Ward, Robert Stone, Wilbiam D. Anderson, W. Lockwood Bradley, Benjamin M. Page, George F. Barker, Lebeus C. Chapin.

• Fair Haven, Chas. S. Thomson, W. H. Thomson, Wm. M. White.

BETHANY, Asa C. Woodward, Edward P. Woodward.

BRANFORD, H. V. C. Holcomb, Newton B. Hall.

CHESHIRE, A. J. Driggs.

DERBY, Charles H. Pinney.

Birmingham, Ambrose Beardsley.

ANSONIA, C. W. Sheffrey, W. J. Whiting,†

GUILFORD, Joel Canfield, Alvan Talcott.

HAMDEN, Edwin D. Swift.

MADISON, D. M. Webb.

MERIDEN, (West,) B. H. CATLIN, Asa H. Churchill, James G. Bacon, Jas. J. Averill, Frederick J. Fitch.

MILFORD, Hull Allen, L. N. Beardsley, Thomas Dutton.

NAUGATUCK, J. D. Mears, J. W. Lawton, Frank G. Tuttle.

NORTH BRANFORD, Sheldon Beardsley.

NORTH HAVEN, R. F. Stillman.

ORANGE, West Haven, H. W. Painter, J. Martin Aimes.

OXFORD, Lewis Barnes.

SEYMOUR, Joshua Kendall, Thos. Stoddard, S. C. Johnson.

SOUTHBURY, A. B. Burritt.

South Britain, N. C. Baldwin.

WALLINGFORD, Nehemiah Banks.

WATERBURY, G. L. Platt, John Deacon, George E. Perkins, Philo G. Rockwell, Thos. Dougherty, Alfred North, Edward L. Griggs.

## NEW LONDON COUNTY.

ASHBEL WOODWARD, M. D., of Franklin, Chairman.

ORRIN E. MINER, M. D., of Noank, Clerk.

NEW LONDON, Nathaniel S. Perkins.

ISAAC G. PORTER, William W. Miner, D. P. Francis, Robert A. Manwaring, Robert McCurdy Lord, L. P. Weaver.

NORWICH, Richard P. Tracy, Erastus Osgood, Elijah Dyer, Elisha Phinney, A. B. Haile, Edwin Bentley, Daniel F. Gulliver, Lewis S. Paddock, Chas. M. Carleton, F. C. Abbott.

ROZRAH, Samuel Johnson.

COLCHESTER, Ezekiel W. Parsons, Frederick Morgan, Melancthon Storrs.

FRANKLIN, ASHBEL WOODWARD.

GEOTON, Mystic River, A. W. Coates, John Gray.

Noank, Orrin E. Miner.

LEBANON, Ralph E. Green.

LEDYARD, Gales Ferry, Albert T. Chapman.

MYSTIC, Mason Manning, A. W. Nelson.

OLD LYME, Richard Noyes.

PRESTON, Eleazer B. Downing.

STONINGTON, George E. Palmer, William Hyde, Jr.

Mystic Bridge, E. F. Coates.

\* Dr. C. H. Austin died Aug. 3, 1866.

† Asked for dismissal from the Society, Case not decided.

## FAIRFIELD COUNTY.

SAMUEL S. NOYES, M. D., of New Canaan, Chairman.

SAMUEL SANDS, M. D., of Darin, Clerk.

FAIRFIELD, S. P. V. R Ten Breck.  
 Greenfield, RUFUS BLAKEMAN.  
 Southport, Justus Sherwood.  
 BRIDGEPORT, D. H. Nash, H. L. W. Bur-  
 ritt, Wm. B. Nash, Robert Hubbard,  
 H. N. Bennett, Elijah Gregory, W. H.  
 Hine, George L. Beers.  
 BROOKFIELD, A. L. Williams.  
 DANBURY, E. P. Bennett, Wm. C. Ben-  
 nett, Frank N. H. Young.  
 BETHEL, A. C. Benedict.  
 DARIEN, Samuel Sands.  
 GREENWICH, James H. Hoyt.  
 HUNTINGTON, James H. Shelton.  
 MONROE, Roger M. Gray.

NEW CANAAN, Samuel S. Noyes, Lewis  
 Richards, Wm. B. Brownson.  
 NORWALK, John A. McLean, Ira Grego-  
 ry, Samuel Lynes, John W. McLean,  
 James E. Barbour.  
 South Norwalk, M. B. Pardee.  
 RIDGEFIELD, O. S. Hickok.  
 STAMFORD, N. D. Haight, Lewis R. Hurl-  
 butt, W. H. Trowbridge.  
 North Stamford, George W. Birch.  
 STRATFORD, William T. Shelton, James  
 Baldwin, R. C. McEwen.  
 TRUMBULL, George Dyer.  
 WESTPORT, George Blackman, William  
 Badger, George M. Bouton.

## WINDHAM COUNTY.

HARVEY CAMPBELL, M. D., of Voluntown, Chairman.

SAMUEL HUTCHINS, M. D., of West Killingly, Clerk.

WINDHAM, \*Chester Hunt, E. Hunting-  
 ton.  
 ASHFORD, John H. Simmons.  
 BROOKLYN, James B. Whitcomb, William  
 Woodbridge.  
 CANTERBURY, \*Elijah Baldwin, Joseph  
 Palmer.  
 CHAPLIN, \*Orrin Witter.  
 HAMPTON, \*Dyer Hughes, Jr.  
 KILLINGLY, \*Justin Hammond.  
 South Killingly, Daniel A. Hovey.  
 West Killingly, Samuel Hutchins.  
 East Killingly, Edwin A. Hill.  
 PLAINFIELD, \*WM. H. OOGSWELL.  
 Central Village, Charles H. Rogers.

POMFRET, \*Hiram Holt, Lewis Williams.  
 PUTNAM, H. W. Hough, Daniel B. Plym-  
 ton.  
 SCOTLAND, Calvin B. Bromley.  
 PLAINFIELD, Moosup, Wm. A. Lewis.  
 THOMPSON, Lowell Holbrook, John Mc  
 Gregor, Charles Hosford.  
 VOLUNTOWN, \*Harvey Campbell.  
 WOODSTOCK, \*Lorenzo Marcy.  
 North Woodstock, \*Asa Witter.  
 West Woodstock, Milton Bradford.  
 WINDHAM, Willimantic, Fred'k Rogers,  
 Charles Bliss, T. Morton Hills.  
 Westford, F. O. Bennett.

## LITCHFIELD COUNTY.†

JOSIAH G. BECKWITH, M. D., of Litchfield, Chairman.

HENRY DAVIS, M. D., of Bethlehem, Clerk.

LITCHFIELD, J. G. BECKWITH, H. W.  
 Buell, D. E. Bostwick.  
 Northfield, D. B. W. Camp,  
 BETHLEHEM, Henry Davis.

BRIDGEWATER, Horace Judson.  
 NORTH CANAAN, Ithamar H. Smith, Al-  
 bert A. Wright.  
 CANAAN, South, John A. Gillett.

\* Over sixty years of age.

† Republished from the old list, without revision by the County Clerk.

|                                                                     |                                                                 |
|---------------------------------------------------------------------|-----------------------------------------------------------------|
| CORNWALL, West Cornwall, Samuel W. Gold, Edward Sanford.            | SHARON, Ralph Deming, William W. Knight.                        |
| HARWINTON, G. B. Miller.                                            | TORRINGTON, Wolcottville, Erastus Bancroft, Jeremiah W. Phelps. |
| MORRIS, Garry H. Miner.                                             | WARREN, John B. Derickson.                                      |
| NEW MILFORD, Gaylordsville, G. H. St. John.                         | WASHINGTON, Remus M. Fowler.                                    |
| NORFOLK, William W. Welch, John H. Welch.                           | New Preston, Sidney H. Lyman, Edward P. Lyman.                  |
| PLYMOUTH, Samuel T. Salisbury.                                      | WINCHESTER, West Winsted, James Welch, John W. Bidwell.         |
| Plymouth Hollow, Wm. Woodruff.                                      | WOODBURY, Charles H. Webb, Harmon W. Shove.                     |
| ROXBURY, Myron Downes.                                              |                                                                 |
| SALISBURY, Lakeville, Benjamin Welch, Wm. Bissell, Henry M. Knight. |                                                                 |

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#### MIDDLESEX COUNTY.

IRA HUTCHINSON, M. D., of Cromwell, Chairman.

SYLVESTER W. TURNER, M. D., of Chester, Clerk.

|                                                                                                       |                                               |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| MIDDLETOWN, Chas. Woodward, Elisha B. Nye, George W. Burke, John E. Blake, Rufus Baker, Wm. B. Casey. | EAST HADDAM, Asa M. Holt, Datus Williams.     |
| CHATHAM, Middle Haddam, A. B. Worthington.                                                            | ESSEX, Alanson H. Hough, Charles H. Hubbard.  |
| CHESTER, S. W. Turner.                                                                                | HADDAM, Miner C. Hazen.                       |
| CLINTON, Denison H. Hubbard.                                                                          | OLD SAYBROOK, Asa H. King.                    |
| CROMWELL, Ira Hutchinson.                                                                             | PORTLAND, George O. Jarvis, G. C. H. Gilbert. |
| DURHAM, R. W. Mathewson, W. R. Griswold.                                                              | SAYBROOK, Deep River, Edwin Bidwell.          |
|                                                                                                       | WESTBROOK, Horace Burr.                       |

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#### TOLLAND COUNTY.

WILLIAM H. RICHARDSON, M. D., of Mansfield, Chairman.

GILBERT H. PRESTON, M. D., of Tolland, Clerk.

|                                                 |                                                     |
|-------------------------------------------------|-----------------------------------------------------|
| TOLLAND, *Oliver K. Isham, G. H. Preston.       | Mansfield Depot, *Norman Brigham.                   |
| BOLTON, Charles F. Sumner.                      | SOMERS, *Orson Wood.                                |
| COVENTRY, *John B. Porter.                      | STAFFORD, Wm. N. Clark.                             |
| South Coventry, *Timothy Dimock, Henry S. Dean. | West Stafford, *Joshua Blodgett.                    |
| ELLINGTON, J. A. Warren.                        | Stafford Springs, C. B. Newton.                     |
| HEBON, *Orrin C. White.                         | VERNON, N. Gregory Hall.                            |
| MANSFIELD, William H. Richardson.               | Vernon Depot, A. R. Goodrich.                       |
| Mansfield Centre, *Earl Swift, O. B. Griggs.    | Rockville, Stephen G. Risley, Francis L. Dickinson. |

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\* Over sixty years of age.

## SUMMARY OF MEMBERS APRIL 1, 1866.

|                         | Total.    | Deaths. |
|-------------------------|-----------|---------|
| Hartford County,.....   | 72        | 0       |
| New Haven County,.....  | 88        | 0       |
| New London County,..... | 34        | 0       |
| Fairfield County,.....  | 41        | 0       |
| Windham County,.....    | 32        | 0       |
| Litchfield County,..... | 35        | 0       |
| Middlesex County,.....  | 22        | 0       |
| Tolland County,.....    | 20        | 0       |
|                         | <hr/> 344 | <hr/> 0 |

NOTE.—Former Fellows of the Connecticut Medical Society are *permanent members* of the Annual Convention, having the privilege of attending all meetings and performing all the duties of Fellows, except voting. All the members of the Society are invited to be present at the meetings of the Convention.

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 RULES OF ORDER.

1. Organization.
2. Certificates of Membership presented and read by the Secretary.
3. Committee on the Election of Fellows.
4. Election of officers for ensuing year.
5. Unfinished business of previous year disposed of.
6. Reception and reference, without debate, of Communications, Resolves, &c., from the several Counties and Members of the Convention.
7. Reading Treasurer's Report.
8. Committee to audit the same.
9. Standing Committees appointed.
10. Committee to nominate Delegates to the American Medical Convention.
11. Committee on Candidates for Gratuitous Course of Lectures.
12. Committee on Honorary Degrees and Honorary Membership.
13. Committee to Nominate Dissertator.
14. President's Address.
15. Reports of Committee appointed on County Communications, Resolves, &c.
16. Reports of Standing Committees.
17. Reports of Committees, in the order in which business was brought forward in Convention.
18. Miscellaneous Business.
19. Literary Exercises—*a*, Dissertation; *b*, Obituary notices of deceased Members; *c*, Voluntary Communications.

## LIST OF ADDRESSES AND DISSERTATIONS DELIVERED IN CONVENTION.

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- 1793 President's Address, by Dr. Leaveritt Hubbard.  
1794 Prize Essay on Autumnal Bilious Fever, by Dr. S. H. P. Lee.  
1794 Prize Essay on the Properties of Opium, by Dr. G. Shepherd.  
1795 Eulogy on Dr. L. Hubbard, by Dr. Eneas Monson, President.  
1795 Prize Essay on the Preparation of Antimony, by Dr. F. P. Ouyiere.  
1795 Prize Essay on the Different Species of Colic, by Dr. T. Betts.  
1796 Prize Essay on the Contagion of Yellow Fever, by Dr. F. P. Ouyiere.  
1796 Prize Essay on Cynanche Tonsillaris, by Dr. S. H. P. Lee.  
1796 Prize Essay on the Most Eligible Mode of Increasing Medical Knowledge in this State, by Dr. Lewis Collins.  
1796 Prize Essay on the same subject, by Dr. Gideon Shepherd.  
1798 History of a Case of Bilious Concretion, by Dr. L. Hopkins.  
1798 An Essay, by Dr. Jared Potter.  
1799 A Dissertation, by Dr. Thaddeus Clark.  
1800 A Dissertation on Lunacy, by Dr. Nathaniel Dwight.  
1804 Essay on the Stafford Mineral Waters, by Dr. S. Willard.  
1812 Essay on the Necessity of a Hospital for Lunatics in this State, by Dr. Nathaniel Dwight.  
1817 Dissertation on the Deleterious Effects of Ardent Spirits, by Dr. W. R. Fowler.  
1818 On Ergot, by Dr. William Buel.  
1820 Dissertation on Typhus Fever, by Dr. Thomas Miner.  
1821 Dissertation on Uterine Hemorrhage, by Dr. Samuel Rockwell.  
1822 Dissertation on Yellow Fever at Middletown, by Dr. Wm. Tully.  
1823 Dissertation by Dr. Dyer T. Brainerd.  
1829 Dissertation on Extra-Uterine Conception, by Dr. Geo. Sumner.  
1830 Dissertation on Diseases of the Ear, by Dr. Charles Hooker.  
1835 Dissertation on the Vitality of the Blood, by Dr. B. Welch, Jr.

- 1836 Influence of Moral Emotions on Disease, by Dr. E. H. Bishop.
- 1837 An Address by the President, Dr. Thomas Miner.
- 1837 A Dissertation on Scarlet Fever, by Dr. Archibald Welch.
- 1838 A Dissertation on Spinal Irritation, by Dr. Isaac G. Porter.
- 1839 A Dissertation on the Mental Qualifications necessary to a Physician, by Dr. Henry Bronson.
- 1840 A Dissertation on the Advantages of Prompt and Efficient Practice in Acute Diseases, by Dr. Richard Warner.
- 1841 An Address by the President, Dr. Silas Fuller.
- 1841 A Dissertation on Insanity as a Subject of Medical Jurisprudence, by Dr. Amariah Brigham.
- 1842 A Dissertation on Uterine Irritation, by Dr. Chas. Woodward.
- 1843 An Address by the President, Dr. Elijah Middlebrook.
- 1843 A Dissertation on Phlebitis, by Dr. Pinckney W. Ellsworth.
- 1845 A Dissertation on the Respect due to the Medical Profession, and the Reasons that it is not awarded by the Community, by Dr. Worthington Hooker.
- 1845 A Dissertation on Laryngismus Stridulus, by Dr. N. B. Ives.
- 1845 Prize Essay on Scarlatina, by Dr. P. W. Ellsworth.
- 1846 A Dissertation, Practical Observations on Typhus Fever, by Dr. Theodore Still.
- 1847 A Dissertation on the Importance of a Medical Organization and the Advantages resulting from it, by Dr. E. K. Hunt.
- 1848 A Dissertation on Some Forms of Non-Malignant Disease of the Cervix Uteri, by Dr. B. Fordyce Barker.
- 1849 An Address by the President, Dr. Archibald Welch.
- 1849 A Dissertation on Hygiene, by Dr. Alvan Talcott.
- 1850 A Dissertation on Medical Jurisprudence, by Dr. J. C. Hatch.
- 1851 An Address by the President, Dr. George Sumner, on the Early Physicians of Connecticut.
- 1853 An Address by the President, Dr. Rufus Blakeman, on the Early Physicians of Fairfield County.
- 1853 A Dissertation on Popularizing Medicine, by Dr. S. Beach.
- 1854 A Dissertation on Diseased Cervix Uteri, by Dr. Wm. B. Casey.
- 1855 A Dissertation on Registration as the Basis of Sanitary Reform, by Dr. Stephen G. Hubbard.
- 1857 An Address by the President, Dr. Benjamin H. Catlin, on the Connecticut Medical Society.
- 1857 A Dissertation on the Medical Profession, by Dr. Benj. D. Dean.
- 1858 An Address by the President, Dr. Benjamin H. Catlin, on the Claims of the Regular Medical Profession to the Confidence of the Community.

- 1859 An Address by the President, Dr. Ashbel Woodward, being an Historical Account of the Connecticut Medical Society.
- 1859 A Dissertation on the Issue, by Dr. Rufus Baker.
- 1860 An Address by the President, Dr. Ashbel Woodward, on Medical Ethics.
- 1860 An Address on Hygiene, by Dr. A. B. Haile.
- 1861 An Address by the President, Dr. Ashbel Woodward, on Life.
- 1861 A Dissertation on Hereditary Predisposition, by Dr. J. B. Lewis.
- 1862 An Address by the President, Dr. Josiah G. Beckwith, on Medical Progress.
- 1862 A Dissertation, being a Review of the Present State of the Question of Spontaneous Generation, by Dr. M. C. White
- 1863 An Address by the President, Dr. Josiah G. Beckwith, on the Dignity and Grandeur of the Medical Profession.
- 1863 A Dissertation on Logio applied to Medical Science, by Dr. J. C. Jackson.
- 1864 An Address by the President, Dr. E. K. Hunt, on Inert Practice in Disease.
- 1864 A Dissertation on Scarlatina, by Dr. P. M. Hastings.
- 1865 An Address by the President, Dr. E. K. Hunt, on Public and Benevolent Institutions and Movements, with which the Connecticut Medical Society has been Prominently Identified.
- 1865 A Dissertation on the Mothers of New England, by Dr. J. E. Blake.
- 1865 Prize Essay on Prophylaxis as it relates to Phthisis Pulmonalis.
- 1866 An Address by the Vice President, Dr. Isaac G. Porter, on the Medico Chirurgical Lessons of the War.
- 1866 A Dissertation on Prophylaxis of Phthisis Pulmonalis, by Dr. C. L. Ives.
- 1866 Prize Essay on Therapeutic Value of Mercury and its Preparations, by Dr. C. L. Ives.

## APPENDIX A.

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### *Report of the Ives Prize Committee.*

The Committee to whom was assigned the duty of selecting subjects for dissertations, and awarding the prize, would respectfully report—

That only two essays have been presented, both on the topic, "An inquiry into the therapeutic value of Mercury, and its preparations."

One of them, with seal and emblem, and a corresponding device on an unopened envelope, embraces valuable points, interspersed with pleasant incident, but, in the opinion of the Committee, is not sufficiently thorough and exhaustive to entitle it to the prize.

The other, bearing the motto, "Amicus Plato, amicus Socrates, sed magis amica veritas," is an elaborate and carefully written exposition of the views of some in the profession, who would greatly limit the therapeutic application of the article in question, and, while the Committee decline endorsing some of its positions, and its general tenor, yet, entertaining the hope that when read in Convention, it may excite discussion, and its publication elicit new investigation and future response, they are unanimous in awarding it the prize.

On opening the sealed envelope accompanying the dissertation, and bearing the same motto, the author's name was found to be Charles L. Ives, of New Haven.

|                    |              |
|--------------------|--------------|
| ISAAC G. PORTER,   | } Committee. |
| GURDON W. RUSSELL, |              |
| J. C. JACKSON,     |              |

NEW HAVEN, May 24th, 1866.



## APPENDIX B.

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### *Prizes for 1867 and 1868.*

At the annual Convention of the Connecticut Medical Society, assembled in New Haven, May 23d, 1866, it was announced that Drs. G. W. Russell, of Hartford, and P. A. Jewett, of New Haven, had presented to the Society each two hundred dollars, the whole to be offered to the profession in the way of prizes for the best essays on certain medical subjects, to be designated by the Convention. At the same time, Drs. B. H. Catlin, of West Meriden, and L. J. Sanford and Henry Bronson, of New Haven, were appointed a Committee to select questions, and award the prizes.

In the discharge of the duty assigned them, the Committee hereby offer the JEWETT PRIZE of two hundred dollars, for the best essay on the following questions, namely:—"By what hygienic means may the health of armies be best preserved?"

The offer is extended to all physicians and surgeons of the United States and of the British Provinces of North America. In awarding the prize, the Committee will feel authorized to regard the literary merits as well as the professional and scientific value of the papers submitted; and should none be received which they think worthy of so generous a prize, they may take the liberty of withholding their decision until the offer can be renewed.

Competitors will send their essays, free of expense, to one of the Committee, on or before the first of March, 1867, each having on it a motto or device, which shall also be written or placed on a sealed envelope, inclosing the writer's name and address. The unsuccessful essays will remain with that member of the Committee in whose hands they were originally placed, subject to the order of their respective authors.

The RUSSELL PRIZE of two hundred dollars will be awarded in 1868. The question will be seasonably announced.

|                                             |              |
|---------------------------------------------|--------------|
| BENJAMIN H. CATLIN, M. D., of West Meriden, | } Committee. |
| LEONARD J. SANFORD, M. D., of New Haven,    |              |
| HENRY BRONSON, M. D., of New Haven,         |              |

## APPENDIX C.

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*Report of the Joint Standing Committee on Humane Institutions, on  
Equal Privileges in State Hospitals.*

[This Report was adopted by the Legislature.]

GENERAL ASSEMBLY,

May Session, A. D. 1866.

A majority of the Committee on Humane Institutions, to whom was referred sundry petitions asking for equal rights in the State Hospitals, respectfully report, that they have carefully attended to the subject assigned to them, and find—

First—That the so-called State Hospitals are, in fact, chartered and private institutions, created, and, to a great extent, endowed by, and through the contributions and agency of those who control them, and are therefore under their exclusive and rightful control.

Second—That the privileges and aid granted these institutions have been granted them as charitable institutions, designed especially to help the poor, and not on account of the peculiar medical opinions and modes of practice of those who control them; and that the petitioners can enjoy the same privileges and aid by creating and sustaining similar institutions.

Third—That it would violate the charters of the Hospitals, for the State to dictate to them by whom, and in what way their internal affairs shall be conducted; and that the attempt to bring together in them the conflicting views and practice of rival medical schools and denominations, would produce endless confusion and strife, and the ruin of the hospitals. Therefore your Committee recommend that the petitioners have leave to withdraw their petitions.

Signed,

GEO. KELLOGG,

*Chairman on the part of the Senate;*

JAS. B. WHITCOMB,

*Chairman on the part of the House;*

THOS. K. FESSENDEN,

A. F. WOOD,

A. MCKINNEY.

## APPENDIX D.

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### *Report of the Committee of Examination.*

An adjourned meeting of the Committee of Examination convened July 25, 1865.

Present on the part of the Connecticut Medical Society, N. B. Ives, M. D., President ex-officio; S. W. Rockwell, M. D.; G. H. Preston, M. D.; W. B. De Forest, M. D.; P. W. Ellsworth, M. D.; and H. N. Bennett, M. D.; and on the part of Yale College, Professors Hooker, Silliman, Hubbard, Lindsley, Bacon and Sanford.

The following gentlemen were examined and recommended for the degree of M. D., having read and defended the Theses annexed to their names:—

1. GEORGE BOICE DURRIE, New Haven, "Stone in the Bladder."
2. JOHN CLAUDIUS HERRICK, Southampton, N. Y., "Acute Laryngitis."
3. Edward Lyman Washburn, A. B., New Haven, "Typhoid Fever."

The Committee of Examination met for the Annual Examination, January 10th, 1866, and continued in session two days.

Present on the part of the State Society, Dr. Isaac G. Porter, Vice President of the State Society, and in the absence of the President, Dr. N. B. Ives, elected President of the Board; Drs. Rockwell, Preston, De Forest, Ellsworth and Bennett, and on the part of Yale College, all the Medical Professors.

The following gentlemen were recommended for the degree of Doctor in Medicine:—

1. LEOPOLD ALBERT L. ANGLES, Avignon, France, "Phthisis Pulmonalis."
2. JAMES JUDSON AVERILL, New Haven, "The Diseases of U. S. Army."
3. STEPHEN CHALKER BARTLETT, North Guilford, "Remittent Fever."
4. STEPHEN HENRY BRONSON, New Haven, "Nutrition of Bone."
5. ALBERT COBERG HALLAM, Winsted, "Diabetes Mellitus."

6. SETH HILL, Bridgeport, "Insufficiency of present system of Medical Education, and the Valedictory."

7. W. E. HITCHCOCK, Westville, "Yellow Fever."

8. ALBERT EUGENE MERRILL, Barkhamstead, "Acute Pleuritis."

9. Z. ROJAS DE MOLINA, San Francisco, Cal., "Dysentery."

10. CHAS. FERRIS MORGAN, Wilton, "Phthisis."

11. FENNER HARRIS PECKHAM, Providence, R. I., "The Study of Medicine."

12. FRANCIS J. YOUNG, Lakeville, "Pyæmia."

The following gentlemen were also examined and received Licenses to practice Physic and Surgery, signed by the President and Secretary of the Committee:—

REV. DAVID MARVIN ELLWOOD, M. A., and E. K. LEONARD.

The Prize of a Pocket Case of Instruments, given by Prof. Hooker to the student sustaining the best examination, was awarded by vote of the Committee, to Mr. A. E. MERRILL. It was further voted that public mention be made of the following gentlemen, for their excellent examinations:—Messrs. L. A. L. ANGLES, J. J. AVERILL, S. H. BRONSON, and SETH HILL.

Prof. Hooker announced the continuation of his Prize, and Dr. H. N. Bennett, of the Examining Board, offered a Prize of \$25 for the best anatomical preparation of any of the important surgical regions, to be competed for by any of the students of the Class of 1866-7.

The Bentley Prize, given by Dr. Edwin Bentley, U. S. V., of \$30, for the best microscopical preparation, was divided, \$20 being given to LUTHER MUNSON GILBERT, A. B., and \$10 to Mr. THOS. T. MINOR.

Dr. Bentley has signified his intention to offer an Annual Prize of \$20 for the encouragement of practical microscopy.

Attest,

C. A. LINDSLEY,

*Secretary of Examining Committee.*

## APPENDIX E.

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### *Report of the Delegation to the New York Medical Society.*

As a Delegate from this Society to the New York State Medical Society, I respectfully report—

That I attended their Fifty-ninth annual meeting, held at Albany, on the 6th day of February last. There were in attendance a large number of permanent members, delegates and honorary members. Immediately following the organization of the meeting, the President, Dr. W. H. Dean, of Rochester, delivered his inaugural address, wherein were expressed his views of the position at present occupied by the profession in the State, and the subjects requiring the attention and action of the Society.

The business awaiting the consideration of the members being great in amount, the reports and papers to be presented so numerous, a business Committee was appointed to arrange the order and limit the time to be occupied in the reading of each communication.

The first two days were entirely devoted to the presentation and discussion of reports and dissertations. The interest of these two days was, in my opinion, fully equal to that attached to any meeting of the National Society that I have attended.

On Wednesday evening, agreeable to custom, the President delivered the annual address in the Assembly Chamber, to a large audience, composed of members of the Legislature and citizens, as well as members of the profession. The address being both interesting and instructive, commanded the attention of all present.

The necessity of leaving the city on the evening train, prevented my participation in the hospitalities of the Governor and Surgeon General, which were extended to the Society and its guests.

Delegates reported from nearly all of the New England States, Pennsylvania and New Jersey.

This Society devotes the last day of its session to the election of officers, who enter upon the duties of their positions at the opening of the succeeding meeting.

I observed the proceedings of this meeting (as well as those of one attended five years ago, as an honorary member, and by the particu-

lar invitation of my friend, Dr. Brinsmade, of Troy,) with special interest, and was led to inquire, in view of what I there learned, what could be done to increase the profit of our own Society?

The number of members in the New York Society is much greater than in that of Connecticut. In this respect we cannot, of course, equal them, but we can increase the present ratio of active members. Again, the law of the State of New York grants the Society the privilege of appointing annually two permanent members from each District. Many of these are regular in their attendance, and thereby give interest, permanency and dignity to the meetings. I think we might with great advantage copy this feature of their Society. If a certain number of our members, who had been Fellows for three or four years, and then nominated as candidates, were each year elected permanent members, they would add greatly to the success of our Conventions. In order to accomplish this, a change would be requisite in our Act of Incorporation, which, it is believed, could be readily obtained.

Another practice of the New York Society I deem worthy of our adoption, viz: the limitation of the tenure of office on the part of President and Vice President, to one year, thereby securing a more equitable distribution of the honors of the Society. The election also of the President at the close of the Convention, would ensure him the year during which to prepare fully for his duties,—to compose his annual address, (which it is desirable should be of a popular as well as of a professional character,) and to mature such suggestions relative to business procedure as he might deem it advisable to present to the Society at the opening of the Convention.

It is hoped that hereafter this Society will appoint Delegates to the New York Society, who will faithfully endeavor to attend its meetings, which never fail of being highly profitable, and where their presence, I am sure, will be most cordially greeted. My associates, the present year, were unavoidably prevented from so doing by urgent professional engagements.

All of which is respectfully submitted.

B. H. CATLIN.

## APPENDIX F.

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### *Unfinished Business.*

1st. A proposition to secure such an alteration of the Charter of the Connecticut Medical Society, as to make permanent members of the Convention of all who have been elected Fellows for at least three years. Said permanent members to have the same privileges in Convention as the regularly appointed Fellows.

2d. A proposition to have the President and Vice President elected at the close of each Convention, and enter upon their duties at the next Convention, and to be ineligible to reelection the next year.

3d. A proposition to pass a by-law providing that a nominating committee of one from a county shall be appointed by the Fellows from that county, to nominate President and Vice President, Standing Committees and Dissertator; elections to take place on the second day of the session.

All the above topics were referred to a Committee, consisting of Drs. J. G. Beckwith, H. Bronson and B. H. Catlin, to report to the next Convention.

4th. A proposition that the Connecticut Medical Society should ask the Legislature to pass a law exempting physicians and surgeons from compulsory testimony as witnesses in court in relation to any knowledge they may have in the case of a patient, when such knowledge was necessary for the treatment of his or her disease.

This 4th proposition was referred to Drs. J. B. Whitcomb, Ira Hutchinson and J. McGregor, to report to the next Convention.

W. J. Whiting, M. D., was recommended by the New Haven County Meeting, for honorable dismissal; also H. R. Olmsted, M. D., and R. Fox, M. D., were recommended by the Hartford County Meeting, for honorable dismissal from the Connecticut Medical Society.

The Convention adjourned for want of a quorum, without taking action on this subject.

## APPENDIX G.

### CHARTER

#### OF THE MEDICAL INSTITUTION OF YALE COLLEGE.

**SEC. 1.** *Be it enacted by the Senate and House of Representatives in General Assembly convened,* The Medical Institution established in Yale College, pursuant to an agreement between the President and Fellows of Yale College, and the President and Fellows of the Medical Society of Connecticut, shall be known and acknowledged by the name of **THE MEDICAL INSTITUTION OF YALE COLLEGE.**

**SEC. 2.** There shall be established in the Institution not less than four Professorships; and the price of the tickets for the course of lectures on each branch, shall not exceed Fifteen Dollars. There shall be a joint committee of an equal number of persons appointed by the President and Fellows of Yale College and the President and Fellows of the Connecticut Medical Society, who shall make a nomination; from which nomination the Professors shall be chosen by the President and Fellows of the College.

**SEC. 3.** Every medical student shall be required to attend to the study of physic and surgery for two years, with some medical or surgical professor or practitioner, who is in respectable standing; provided he shall have been graduated at some college; otherwise to study three years; to have acquired in addition to a good English education, a competent knowledge of the Latin language and of the principles of Natural Philosophy; to have arrived at the age of twenty-one years; to be of good moral character; and to deliver to the committee of examination a satisfactory dissertation upon some subject in medicine or surgery or the auxiliary branches. And every medical student shall attend one course of the lectures, under the Professors of the Medical Institution of Yale College or of some other public medical institution, previously to his being admitted to an examination for a license; and the course or courses of lectures which he shall attend, may be included within the time he is required to study. Provided, nevertheless, that upon the recommendation of the Medical Society in each county, one meritorious and necessitous person from each county shall annually be allowed the privilege of attending one course of lectures gratis, and if any of the counties should fail to recommend as above, the President and Fellows of said Society may fill up the vacancy. It shall be the duty of the clerks of the several county meetings to report to the President and Fellows the names of the persons whom they shall agree to recommend; and the Secretary of the Society shall transmit the said names, together with such as the President and Fellows may add, agreeably to the above provision, to the Medical Professors of Yale College.

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\* This form of the Charter of the Medical Institution of Yale College has been compiled by combining with the Act of June 5th, 1834, the amendments adopted June 26th, 1836, and June 26th, 1855.



Provided, furthermore, that no person shall be recommended as aforesaid, to a gratuitous course of lectures, unless such person shall have previously attended one course of lectures in the Medical Institution of Yale College.

SEC. 4. Each candidate for the degree of Doctor in Medicine shall be required to attend two full courses of lectures, one of which, at least, shall be at the Medical Institution of Yale College, the other, if attended elsewhere, being at an Institution where a similar course of public instruction is pursued; which degree, upon the recommendation of at least two-thirds of the Committee of Examination, shall be conferred by the President of the College, and the diploma signed by him and countersigned by the Examining Committee, or a majority of them; and the fee for graduation shall be twenty-five dollars. The President of the College may also confer the honorary degree of Doctor of Medicine upon those persons whom the President and Fellows of the Medical Society shall recommend for that purpose.

SEC. 5. The Committee of Examination for the practice of physic and surgery, shall consist of the Professors of the Medical Institution of the College and an equal number of the members of the Medical Society, appointed by the President and Fellows of the same; and the President of the Medical Society shall be ex-officio President of the Examining Committee; and in case of the absence of the President, a President *pro tempore* shall be appointed by the members of the Examining Committee, chosen by the Medical Society, with the same powers; which Committee or a majority of them shall possess the power, and they only, of examining for a license; and all licenses to practice physic or surgery, shall be signed by the President of the Medical Society, and countersigned by the Secretary of the Committee of Examination; which Secretary they are hereby authorized to appoint; and the fee for each license shall be Fifteen Dollars, and shall accrue to the Medical Society. All licenses heretofore signed by the Clerk or Secretary of the Examining Committee, shall be valid and have the same effect as if they had been signed by the Examining Committee, any law to the contrary notwithstanding.

SEC. 6. There shall be two examinations in the year, one of which shall be held immediately at the close of the lectures, and the other during commencement week in the Academical Department of Yale College. When a candidate is prevented by sickness from attending at that time, he may afterwards be examined by the Medical Professors; and such examination, together with their certificate thereof, shall entitle him to the same privileges as though his examination had been by said Committee.

SEC. 7. All medical students who shall have attended two courses of the lectures in the Medical Institution, shall have the privilege of attending all future courses gratis.

*And be it further enacted*, That the act entitled "An act to incorporate the Connecticut Medical Society, and to establish the Medical Institution of Yale College," and all acts in addition to, and in alteration thereof, be, and the same are hereby repealed; Provided, that all proceedings had, and all obligations imposed, in pursuance of the acts hereby repealed, shall have the same effect as though said acts were still in force; and all taxes heretofore laid pursuant to said acts, may be collected according to the provisions of said acts, in the same manner as though said acts had not been repealed.

## EDITORIAL• NOTICE

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The Committee of Publication would take this opportunity of reminding the Society that the character and value of its yearly issue must depend mainly upon the exertions of the individual members. To this end they desire earnestly to impress upon each the obligation, for the general good, of furnishing communications upon such questions of general interest as their personal experience or reflection has especially tended to elucidate. Reports of solitary cases, unless to suggest or establish some main principle, are suited rather to the pages of a medical journal than to a publication like this, issuing but once a year.

The committee would call especial attention to the fact that a By-Law of the Society requires that *all communications designed for publication*, must be placed in the hands of the Publishing Committee at least ONE WEEK BEFORE the meeting of the Convention.

The attention of Contributors is directed to the RUSSELL AND JEWITT PRIZES, offered in Appendix B, for which general competition is invited from all parts of the United States and British Provinces.

# Yale Medical School.

This is an Association, consisting of the Medical Professors in Yale College, and Drs. M. C. White, C. L. Ives and G. F. Barker, established for the purpose of Supplementing the Public Lectures of the College by a thorough course of Recitations, Practical Exercises and Clinics, extending through the entire year.

The year is divided into two terms. The first coincides with the course of lectures in the Medical Institution. The second, beginning upon the second Wednesday in February, continues until the last Wednesday in July, with a vacation of two weeks in April or May.

During the Autumn Term, one daily recitation will be held, in review of the Public Lectures.

During the Spring Term, recitations will be held twice, daily, at the Medical College, and hours will also be assigned for Clinical Instruction, for Laboratory Practice and for Demonstrations in Anatomy and Microscopy.

It is intended that the course of tuition, by means of text-book recitations, familiar lectures and demonstrations, shall be practical and experimental in every Department, as far as possible. Ample means of illustration, which are at hand, will be employed in the several Departments.

Abundant opportunity and every convenience for practical Anatomy will be afforded.

In Chemistry, a thorough course of Laboratory Practice forms part of the plan of instruction.

Microscopy will be taught by means of the binocular and other most improved instruments, and a large collection of the best illustrative specimens. To those desiring it, special instruction will be given in the preparation and mounting of specimens for the microscope.

The whole or a portion of the studies may be pursued in any Term, at the option of the student. It will be the aim of the instructors to consult the needs of individual students, especially of beginners, and, as far as may be, to adapt the course of instruction to them.

Students have free access to the libraries and museums of the University. Those desiring to study collateral branches of science may obtain admission to the lectures of the Professors of Natural Philosophy and Astronomy—of Geology and Mineralogy—of Botany and of Zoology in Yale College.

Certificates of time and study are given to the members of the School, and the advantages of this systematized study are greatly superior to the opportunities possible in the office of a private physician.

## TUITION FEES.

|                                                                                 |         |
|---------------------------------------------------------------------------------|---------|
| For the Autumn Term, - - - - -                                                  | \$15.00 |
| For the Spring Term, - - - - -                                                  | 60.00   |
| Contingent expenses of Laboratory practice during the<br>Spring Term, - - - - - | 10.00   |

**Moses C. White, M. D.,**

New Haven, Aug. 1866.

*Secretary.*

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**N. B.—The next Annual Convention will meet in Hartford,  
22d, at 11 A. M.**

## PROCEEDINGS.

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The *Seventy-fifth* Convention of the Connecticut Medical Society was held in Hartford, May 22d and 23d, 1867.

The Convention assembled at the Hartford Hospital, at 11 A. M., May 22d, and was called to order by the President, Isaac G. Porter, M. D.

The list of Fellows, as reported by the Clerks of the several County Meetings, was read by the Secretary.

The President appointed Drs. C. E. Hammond, H. W. E. Matthews and M. C. Hazen, a Committee on Credentials.

The Committee on Credentials reported the following persons duly elected as Fellows of the Convention, and the report was accepted as follows, viz :

FELLOWS.

HARTFORD COUNTY.

C. E. Hammond, M.D.	S. B. Beresford, M. D.
Charles Carrington, "	Lucien S. Wilcox, "
William Wood, "	

HEW HAVEN COUNTY.

P. G. Rockwell, M. D.	Asa H. Churchill, M. D.
H. W. E. Matthews, "	Edward Bulkley, "
Stephen G. Hubbard, "	

NEW LONDON COUNTY.

*Lewis S. Paddock, M. D.	*Orrin E. Miner, M. D.
*Mason Manning, "	*Geo. E. Palmer, "
*F. S. Abbott, "	

FAIRFIELD COUNTY.

Robert Hubbard, M. D.	*Samuel Sands, M. D.
*Hanford N. Bennett, "	Aug. H. Abernethy, "
*Roger M. Gray, "	

* Absent.

LITCHFIELD COUNTY.

Josiah G. Beckwith, M. D.	Henry S. Turrell, M. D.
Ralph Deming, "	*William S. Munger, "
*Samuel T. Salisbury "	

MIDDLESEX COUNTY.

Miner C. Hazen, M. D.	Charles H. Hubbard, M. D.
Edwin Bidwell, "	

TOLLAND COUNTY.

A. R. Goodrich, M. D.	C. B. Newton, M. D.
William N. Clark, "	

WINDHAM COUNTY.

Samuel Hutchins, M. D.	*John Witter, M. D.
Charles Bliss, "	Calvin B. Bromley, "
*Hiram Holt, "	

A considerable number of other members of the Society, having formerly been Fellows, were present and took part in the proceedings of the Convention.

The following persons, duly accredited as Delegates from other State Societies, were received as Members of the Convention, and added interest to its proceedings :

NEW HAMPSHIRE MEDICAL SOCIETY.

S. F. L. Simpson, M. D., of Concord.

VERMONT MEDICAL SOCIETY.

S. T. Woodward, M. D.

MASSACHUSETTS MEDICAL SOCIETY.

Benjamin E. Cotting, M. D., of Roxbury.

MEDICAL SOCIETY OF STATE OF NEW YORK.

H. D. Bulkley, M. D., of New York.

MEDICAL SOCIETY OF NEW JERSEY.

William Pierson, M. D.

The Secretary stated that a Committee of the Connecticut State Dental Association were present and would like opportunity to address the Convention in regard to the establishment of a School of Dentistry in Yale College,

On motion, the Committee were invited to address the Convention. The following gentlemen were introduced as the Committee of the Dental Association, viz :

A. Hill, D. D. S., of Norwalk.
W. W. Sheffield, of New London.
Samuel Mallett, of New Haven.

These gentlemen addressed the Convention, setting forth the fact, that physicians formerly attended to all that was known or practiced in the line of dentistry, but that, as the department of dentistry had been enlarged, it became too complex and absorbing for the practicing physician, and that hence dentistry had become a separate profession. Yet, while dentistry had become mostly a separate profession, country physicians were still called upon to perform many of the duties of dentists, and dentists, in our large towns, were called to perform many duties demanding the scientific knowledge and practical skill of the experienced physician and surgeon. The lives of their patients are so often dependent upon the knowledge and skill of dentists, that the public good requires they should have an education equal to, and in many respects the same, as is required for Doctors of Medicine.

In some States, separate and independent Colleges of Dentistry have been established.

In Connecticut, the Dental Association believe the Science and Art of Dentistry might be taught under the shadow of Yale College, with more success and with less expense, than by the establishment of a new and independent institution. Students in dentistry might avail themselves of the instruction in chemistry, philosophy and medicine, as now taught in the different departments of Yale College, and by the founding of two or three additional professorships in the *Special* departments belonging to dentistry, we should have, in effect, a Dental College equal to any in the United States.

With such facilities added to those now possessed by Yale College, students in the regular Medical course might obtain that general knowledge of dentistry which would be of material service to those who should be located at a distance from professional dentists.

In view of these and other considerations, the Committee hoped the Connecticut Medical Society would consider what coöperation and encouragement they could give towards the introduction of Dental Science, as a study to be pursued in Yale College.

It being thought best to defer the further consideration of this subject, until after the routine business of the Convention, the Dental

Committee retired, to attend the meeting of their own Association, and the Convention proceeded to the

ELECTION OF OFFICERS.

The following gentlemen were elected officers of the Connecticut Medical Society for the ensuing year, viz :

CHARLES WOODWARD, M.D., PRESIDENT.

S. B. BERESFORD, M.D., VICE PRESIDENT.

JAMES C. JACKSON, M.D., TREASURER.

MOSES C. WHITE, M.D., SECRETARY.

On motion, it was resolved, that the Treasurer be authorized to appoint an Assistant, to act in case of his absence from the State for a part of the year.

G. B. Hawley, M.D., presented an invitation to the Convention to visit the wards and other rooms of the Hospital, at the close of the morning session.

An invitation was also received for the Convention to visit the American Asylum for Deaf and Dumb, between the hours of 9 and 12 A. M., and 2 and 4 P. M., on either day of the session.

Both invitations were accepted by the Convention.

Unfinished business of last year being in order, the Convention voted to approve the action taken by the Hartford County Meeting of last year, and to give honorable dismissal from the Society to R. H. Olmsted, M.D., of East Hartford, and R. Fox, M.D., of Wethersfield, their dismissal to date from the time it was recommended by the Hartford County Meeting, in April, 1866. In a similar manner, and with the same provision, honorable dismissal was granted to W. J. Whiting, M.D., of Ansonia, on recommendation of the New Haven County Meeting, of April, 1866.

The Convention of 1866 having adjourned without providing for the publication of their Proceedings, on motion of Dr. Wilcox,

Voted, That this Convention approve the action of the Secretary and Treasurer, in publishing and paying for 550 copies of the Proceedings of last year.

Doctors J. G. Beckwith, L. S. Wilcox and S. G. Hubbard, were appointed a Committee on County Resolves.

Adjourned to 2½ P. M.

Afternoon Session.

At 2½ P. M. the Convention re-assembled. The President and Vice President being absent, Ralph Deming, M.D., was called to preside,

but before any business was transacted, the Vice President, S. B. Beresford, M. D., arrived and took the Chair.

On motion of Dr. Matthews, the action of New Haven County Meeting, in regard to Asa C. Woodward, M. D., and E. P. Woodward, M. D., was referred to the Committee on County Resolves.

On motion of Dr. White, it was

Resolved, That the Communication of the Connecticut State Dental Association in regard to Dental Instruction in Yale College, be referred to a Committee of five, who shall confer with the Committee of the Dental Association, and with the Faculty of the Medical Institution of Yale College, and take such action as to them may seem proper.

The President, having taken the Chair, appointed

S. B. Beresford, M. D.,	} Committee on Dental Education.
J. G. Beckwith, M. D.,	
M. C. White, M. D.,	
S. H. Abernethy, M. D.,	
A. R. Goodrich, M. D.,	

Voted, That a Committee of one from each County be appointed to nominate Standing Committees.

On this Committee the President appointed Doctors Wm. Wood, S. G. Hubbard, S. H. Abernethy, M. C. Hazen, A. R. Goodrich, S. Hutchins, and J. G. Beckwith.

The President also appointed the following Committees, viz :

Committee to nominate Delegates to the American Medical Association—Drs. B. H. Catlin, L. S. Wilcox, and P. G. Rockwell.

Committee on Gratuitous Students—Drs. P. G. Rockwell, L. S. Wilcox, and Ralph Deming.

Committee to nominate Dissertator and Alternate—Drs. H. W. E. Matthews, Wm. N. Clark, and C. B. Bromley.

The committee on Delegates to the American Medical Association reported, and the Convention appointed as Delegates to the American Medical Association—Drs. B. H. Catlin, J. G. Beckwith, Robert Hubbard, S. B. Beresford, C. M. Carleton, and C. B. Bromley.

The Committee of Publication made their report of papers recommended for publication ; also the arrangements for the present Convention. The report was approved.

The Committee to nominate Standing Committees, reported the following names, which were approved by the Convention, to fill vacancies, viz :—on Committee of Examination—Drs. P. M. Hastings, C. L. Ives.

On Committee to Nominate Professors in the Medical Institution of Yale College—Drs. J. B. Lewis, L. S. Paddock.

On Committee to Nominate Physician to the Retreat for the Insane—Wm. Woodruff and Elisha B. Nye.

The President then appointed, on Committee of Publication—Drs. H. Bronson and A. Talcott.

Committee on Registration—H. W. E. Matthews.

The Committee reported for Dissertator—C. M. Carleton, M. D., of Norwich; Alternate, Henry A. Carrington, M. D., of New Haven.

The Committee on Honorary Membership, proposed the names of Samuel L. F. Simpson, M. D., of Concord, N. H., and A. P. Woodward, M. D., of Vermont. The nomination lies over for one year before action can be taken.

Dr. Henry Bronson, of New Haven, then read an interesting Biography of the late Prof. Eli Ives, M. D.

The thanks of the Convention were unanimously voted to Dr. Bronson, for the Memoir of Dr. Ives, and a copy was requested for publication.

The Committee on Prizes presented their report, which was accepted and referred to the Committee of Publication. [See Appendix B.] The Committee were continued, and Drs. Melancthon Storrs and C. L. Ives were added to the Committee.

The Treasurer of the Society was authorized to furnish to the Prize Committee the interest of the Prize Fund, to pay for advertising the offers of prizes.

The Report of the Committee of Examination was presented, and, without reading, it was referred to the Committee of Publication. [See Appendix A.]

Voted, That the *Annual Tax* be *Two Dollars*, payable June 1, 1867.

Voted, That the Secretary and Treasurer be authorized to publish Five Hundred and Fifty copies of the Proceedings.

On motion of Dr. Beckwith, the President appointed as a Committee to Nominate Delegates to other State Medical Societies—Drs. Isaac G. Porter, C. B. Bromley, L. S. Wilcox and Charles Bliss.

Hartford Hospital.

The following Resolutions were adopted by a unanimous vote, viz:

Resolved, That in the opinion of this Convention, whose Sessions are held within its walls, the Hartford Hospital, in respect to location, construction, and management, is admirably adapted to its benevolent

purpose:—the care of the sick and suffering among our citizens, and also as a Home for such disabled soldiers of the Commonwealth as may need its aid.

Resolved, That we earnestly commend it to the favorable notice of the Legislature; believing that in no way can the wants of the classes referred to be suitably supplied at so small a cost to the State, as by granting the aid asked for, to complete the enlargement now in progress.

Voted, That the members of the Convention visit the American Asylum for the Deaf and Dumb, to-morrow, at 10 A. M.

The Committee on Gratuitous Students reported that—

New London County had appointed James L. Weaver.

Fairfield County “ “ John H. Grannis.

The Committee recommended, to fill vacancies, Gould A. Shelton, of Huntington, and Henry Martyn Rising, of Norwich.

The report was accepted, and the gentlemen were appointed by the Convention.

The Committee appointed last year to consider the matter of compulsory testimony in court by physicians in regard to their patients, and in regard to increase of fees for the testimony of experts, reported, that in their opinion no action should be taken by the Convention.

The Report was approved, and the Committee was discharged.

Voted, That the Publishing Committee be authorized to purchase and distribute to each member of the Society, such books as the funds of the Society will warrant, or, at their discretion, to *publish* interesting matter for distribution.

Voted, To meet, to-morrow, at 8½ A. M.

Voted, To accept the invitation of the Hartford Medical Society, to a social entertainment at the Trumbull House, at 9 P. M.

The Committee on alteration of the By-Laws, made a report, which was referred back to the Committee, with instructions to re-consider, and report to-morrow.

Adjourned to meet at the Hall of Representatives at 8 P. M., to hear the Annual Address by the retiring President, Dr. Isaac G. Porter.

Evening Session.

At 8 P. M. the Convention assembled in the Hall of the House of Representatives, together with members of the Assembly and ladies and gentlemen of Hartford. The retiring President, Isaac G. Porter, M. D., delivered an interesting and instructive Address, on “THE SELF-RESTORATIVE POWER IN THE LIGHT OF MODERN SCIENCE.”

On motion, it was resolved, that the thanks of the Convention be tendered to the retiring President, for his able and interesting Address, and that he be requested to furnish a copy for publication.

The Convention then adjourned to the Trumbull House, where the Hartford City Medical Association had provided an elegant and generous entertainment.

After partaking of the luxuries of the season, which abounded in great profusion, the guests were welcomed to the hospitalities of the occasion by Dr. G. S. Hawley, of Hartford, who presided. Speeches, abounding in wit, humor, and kindly social feeling, followed, from his Excellency, Governor James E. English, Ex-Governor Hawley, Lieutenant-Governor Ephraim T. Hyde, Hon. John T. Wait, the Speaker of the House of Representatives, and many others.

Some of the gentlemen from New Haven who were called out, spoke of the greatly improved system of instruction now in operation in the Medical College, and explained the plans for still further improvement, which are about to be introduced into the Institution. They appealed to the State Society, as the founder and patron of the College, to continue to, show the active interest in its welfare which had hitherto contributed so much to its usefulness and prosperity, believing, as they did, that at no former period in the history of the College, has the standard of scholarship been higher, or the quality of the instruction superior to that which is at present afforded there. And it was hoped that the practical coöperation of the profession of the State, would not be wanting, in aid of the efforts of the friends of the College, to place it on a foundation in every way worthy of the present advanced state of medical science. Dr. Porter, of New London, said, that the modesty of the gentlemen who had just spoken, had prevented them from saying some things that ought to be said by somebody, and he thought he was the proper person to say them. It had been his good fortune, as Vice President and President, to be present at, and take part in, the examinations for degrees at the Medical College, in two successive years, and he must say, that he was not only delighted, but astonished, at the superior excellence of the examinations, and the intimate acquaintance with the philosophy of medical science, in all its branches, exhibited by the graduating classes. He was glad of this opportunity to express his appreciation and approval of plans for more extended and systematic instruction, the wisdom and success of which were so clearly demonstrated at the final examinations.

Dr. Knight, of Lakeville, said, that as a member of the Board of Examination for Degrees, he had had an opportunity to judge of the quality of the instruction given at the College, by the manner in which the rigid examinations for degrees were met by the graduates. He did not believe that better examinations were ever passed, anywhere; but the College was suffering for the want of money to enable the faculty to provide more ample means of illustration, by enlarging the Pathological Museum, the Library, and the Chemical Laboratory; and providing a fund by which the College building and its valuable contents can be more appropriately cared for. To do this, they must receive pecuniary aid, and he hoped that every member of the Society would feel it to be a privilege, as well as an obligation, to contribute to the funds of the College, as largely as he was able.

Thursday Morning, May 23d.

The Convention re-assembled at 8½ A. M., the President, Dr. Chas. Woodward, in the Chair. The Committee appointed to nominate delegates to other State Societies, made their Report, which was adopted as follows, viz :—

Delegates to the Medical Society of Maine, J. C. Jackson, M. D., G. W. Russell, M. D.

To the Medical Society of New Hampshire, Henry Bronson, M. D., J. B. Whitcomb, M. D.

To the Medical Society of Vermont, Ashbel Woodward, M. D., E. K. Hunt, M. D.

To the Medical Society of Massachusetts, H. M. Knight, M. D., Wm. B. Anderson, M. D.

To the Medical Society of Rhode Island, S. Hutchins, M. D., A. H. Abernethy, M. D.

To the Medical Society of New Jersey, C. A. Lindsley, M. D., L. J. Sanford, M. D.

To the Medical Society of New York, Charles Woodward, M. D., J. G. Beckwith, M. D., George F. Barker, M. D., C. L. Ives, M. D., M. C. White, M. D.

Voted, That delegates to the American Medical Association, and to other Societies, have power to appoint substitutes, who may apply to the Secretary for credentials.

The Treasurer presented his Report, which was approved and ordered on file.

Summary of the Treasurer's Report.

May 22, 1967. Cash in Treasury,*	- - -	\$736.76½
Due from Clerks and Ex-clerks,	\$1,625.29	
Deduct three-fourths of this for abatements,		
Commissions, bad debts, &c.,	1,218.96—	\$406.33
Total of Cash and due from Clerks,	- -	\$1,143.09½
The Society owes for debentures outstanding,	-	201.75
Balance in favor of the Society,	- - -	\$941.34½
Balance in favor of the Society last year,	-	1,106.34½
Less this year than last year,	- - -	\$165.00

Voted. That the thanks of the Convention be tendered to the Hartford City Medical Association, for the splendid and hospitable entertainment furnished to the Convention last evening.

The Committee on Alteration of the By-Laws reported, that in their opinion no action by this Convention was required. The report was accepted, and the Committee was discharged.

MEDICAL INSTITUTION OF YALE COLLEGE.

In further support of his testimony, given last evening, to the efficiency of the course of instruction given at the Medical Institution of Yale College, Dr. Isaac G. Porter offered the following Resolutions, which were unanimously adopted:—

Resolved, That we regard with deep interest and satisfaction, the prosperity of the Medical Institution of Yale College, and recognize the efforts of its Faculty to elevate the standard of scholarship, and to advance the interests of sound learning in it.

Resolved, That we commend the institution to the increased confidence of the Profession, as worthy of their hearty support and fostering care.

Resolved, That in view of the urgent necessity of increasing the means of usefulness of the College; and of enabling it to carry out its plans for a more extended and complete course of instruction, we deem it important to raise One Hundred Thousand Dollars, by sub-

* NOTE.—Of this amount, reported as Cash in the Treasury, Four Hundred Dollars belongs to the Prize Fund, leaving only \$336 76½ of ordinary funds in the Treasury. It is found, that after publishing the Proceedings, as ordered by the Convention, it will be impossible to purchase this year, for distribution to the members of the Society, any book which would be likely to be generally acceptable.

scription to the funds of Yale College, for the use and benefit of the Medical Institution.

Resolved, That the President and Secretary be, and they are hereby empowered to take such action as they may deem expedient to secure this result.

Voted, That the name of Wm. W. Miner, of New London, be stricken from the list of members.

Robert Hubbard, M. D., of Bridgeport, then read a Dissertation on "The Value of Milk, as an Article of Diet for the Sick."

Voted, That the thanks of the Convention be presented to Dr. Hubbard for his Dissertation, and that a copy be requested for publication.

Dr. S. G. Hubbard, of New Haven, remarked on the importance of Milk Diet for the Sick, in various chronic as well as acute diseases, and alluded to the well-known case of the late Dr. Twitchell, of Keene, N. H., who had for some years suffered from a tumor at the inner canthus of the eye, and which was supposed to be of a malign character. He attended a meeting of the American Medical Association, to obtain a consultation of surgeons upon his case. But failing in his efforts to find a surgeon who was willing to remove it, he placed himself on a rigorous diet of milk, with bread, allowing himself a pint of milk and four ounces of bread, three times a day. The tumor soon began to diminish, and at the end of two years, he exhibited himself again to the Association, with not a vestige of the tumor remaining,—while the fine physical development, for which the Doctor was always remarked, had suffered no apparent change.

Voted, That the thanks of the Convention be tendered to Dr. Isaac G. Porter, the retiring President, for the able manner in which he has discharged the duties of his office.

Adjourned to meet in New Haven, at 11 A. M., the fourth Wednesday in May, 1868.

Attest,

M. C. WHITE, M. D., *Secretary*.

OFFICERS OF THE SOCIETY.
FOR 1867-8.

PRESIDENT.

CHARLES WOOWARD, M. D., OF MIDDLETOWN.

VICE-PRESIDENT.

S. B. BERESFORD, M. D., OF HARTFORD.

TREASURER.

JAMES C. JACKSON, M. D., OF HARTFORD.

SECRETARY.

MOSES C. WHITE, M. D., OF NEW HAVEN.

STANDING COMMITTEES.

Committee on Examination.

CHARLES WOODWARD, M. D., *ex-officio*.

H. N. BENNETT, M. D.

IRA HUTCHINSON, M. D.

H. M. KNIGHT, M. D.

P. M. HASTINGS, M. D.

CHARLES L. IVES, M. D.

*Committee to Nominate Professors in the Medical Institution
of Yale College.*

S. T. SALISBURY, M. D.

C. E. HAMMOND, M. D.

JAMES B. WHITCOMB, M. D.

J. B. LEWIS, M. D.

L. S. PADDOCK, M. D.

Committee to Nominate Physician to Retreat for the Insane.

GURDON W. RUSSELL, M. D.
 ROBERT HUBBARD, M. D.
 G. H. PRESTON, M. D.
 WM. WOODRUFF, M. D.
 ELISHA B. NYE, M. D.

Committee of Publication for 1868.

M. C. WHITE, M. D., *ex-officio*.
 G. W. RUSSELL, M. D.
 L. J. SANFORD, M. D.
 HENRY BRONSON, M. D.
 ALVAN TALCOTT, M. D.

Committee on Registration.

B. H. CATLIN, M. D.
 L. S. WILCOX, M. D.
 H. W. E. MATTHEWS, M. D.

Dissertator.—C. M. CARLETON, M. D.

Alternate.—HENRY A. CARRINGTON, M. D.

MEMBERS OF THE SOCIETY.

HONORARY MEMBERS.

*FELIX PASCALIS,	- - - - -	New York City.
JAMES JACKSON,	- - - - -	Boston, Mass.
*JOHN C. WARREN,	- - - - -	Boston, Mass.
*SAMUEL L. MITCHELL,	- - - - -	New York City.
*DAVID HOSACK,	- - - - -	New York City.
*WRIGHT POST,	- - - - -	New York City.
*BENJAMIN SILLIMAN,	- - - - -	New Haven.
*GEORGE M'CLELLAN,	- - - - -	Philadelphia, Pa.
*JOHN MACKIE,	- - - - -	Providence, R. I.
*CHARLES ELDREDGE,	- - - - -	East Greenwich, R. I.
*THEODORIC ROMEYN BECK,	- - - - -	Albany, N. Y.
*JAMES THACHER,	- - - - -	Plymouth, Mass.
EDWARD DELAFIELD,	- - - - -	New York City.
JOHN DELAMATER,	- - - - -	Cleveland, O.
*WILLIAM P. DEWEES,	- - - - -	Philadelphia, Pa.
*JOSEPH WHITE,	- - - - -	Cherry Valley, N. Y.
JACOB BIGELOW,	- - - - -	Boston, Mass.
WALTER CHANNING,	- - - - -	Boston, Mass.
*PHILIP SYNG PHYSIC,	- - - - -	Philadelphia, Pa.
*LEWIS HERMAN,	- - - - -	U. S. Navy.
*DANIEL DRAKE,	- - - - -	Cincinnati, O.
*HENRY MITCHELL,	- - - - -	Norwich, N. Y.
NATHAN RYNO SMITH,	- - - - -	Baltimore, Md.
*VALENTINE MOTT,	- - - - -	New York City.
*SAMUEL WHITE,	- - - - -	Hudson, N. Y.
REUBEN D. MUSSEY,	- - - - -	Cincinnati, O.
*WILLIAM TULLY,	- - - - -	Springfield, Mass.
RICHMOND BROWNELL,	- - - - -	Providence, R. I.
*WILLIAM BEAUMONT,	- - - - -	St. Louis, Mo.
SAMUEL HENRY DICKSON,	- - - - -	Philadelphia, Pa.
*SAMUEL B. WOODWARD,	- - - - -	Northampton, Mass.
*JOHN STEARNS,	- - - - -	New York City.
*STEPHEN W. WILLIAMS,	- - - - -	Deerfield, Mass.
*HENRY GREEN,	- - - - -	Albany, N. Y.
*GEORGE FROST,	- - - - -	Springfield, Mass.
WILLARD PARKER,	- - - - -	New York City.

* Deceased.

*BENAJAH TIOKNOR,	- - - - -	U. S. Navy.
ALDEN MARCH,	- - - - -	Albany, N. Y.
*AMOS TWITCHELL,	- - - - -	Keene, N. H.
CHARLES A. LEE,	- - - - -	New York City.
*DAVID S. O. H. SMITH,	- - - - -	Providence, R. I.
*JAMES M. SMITH,	- - - - -	Springfield, Mass.
HENRY D. BULKLEY,	- - - - -	New York City.
J. MARION SYMS,	- - - - -	New York City.
*JOHN WATSON,	- - - - -	New York City.
FRANK H. HAMILTON,	- - - - -	Brooklyn, L. I.
ROBERT WATTS,	- - - - -	New York City.
J. V. O SMITH,	- - - - -	Boston, Mass.
O. WENDELL HOLMES,	- - - - -	Boston, Mass.
JOSEPH SARGENT,	- - - - -	Worcester, Mass.
*MASON F. COGSWELL,	- - - - -	Albany, N. Y.
FOSTER HOOPER,	- - - - -	Fall River, Mass.
THOMAS C. BRINSMADE,	- - - - -	Troy, N. Y.
GEORGE CHANDLER,	- - - - -	Worcester, Mass.
GILMAN KIMBALL,	- - - - -	Lowell, Mass.
JAMES McNAUGHTON,	- - - - -	Albany, N. Y.
USHER PARSONS,	- - - - -	Providence, R. I.
*S D. WILLARD,	- - - - -	Albany, N. Y.
JOHN WARE,	- - - - -	Boston, Mass.
EBENEZER ALDEN,	- - - - -	Randolph, Mass.
B. FORDYCE BARKER,	- - - - -	New York City.
JOHN G. ADAMS,	- - - - -	New York City.
JARED LINSLEY,	- - - - -	New York City.
A. J. FULLER,	- - - - -	Bath, Me.
SAMUEL H. PENNINGTON,	- - - - -	Newark, N. J.
FREDERICK N. BENNETT,	- - - - -	Orange, N. J.
THOMAS W. BLAT HFORD,	- - - - -	Troy, N. Y.
THOMAS C. FINNELL,	- - - - -	New York City.
N. C. HUSTED,	- - - - -	New York City.
JACOB P. WHITTEMORE,	- - - - -	Chester, N. H.
JOHN GREEN,	- - - - -	Worcester, Mass.
THOMAS SANBORN,	- - - - -	Newport, N. H.
WILLIAM PIERSON,	- - - - -	Orange, N. J.
ARTHUR WARD,	- - - - -	Belleville, N. J.
HIRAM CORLISS,	- - - - -	Washington, N. Y.
E. K. WEBSTER M. D.,	- - - - -	Boscawen, N. H.
P. A. STACKPOLE, M. D.,	- - - - -	Dover, N. H.

PROPOSED FOR HONORARY MEMBERSHIP.

S. F. L. SIMPSON, M. D.	- - - - -	of Concord N. H.
A. T. WOODWARD, M. D.,	- - - - -	Vt.

* Deceased.

ORDINARY MEMBERS.

The names of those who have been Presidents are in Capitals.

HARTFORD COUNTY.

WILLIAM SCOTT, M. D., of Manchester, Chairman.

HENRY P. STEARNS, M. D., of Hartford, Clerk.

HARTFORD, Henry Holmes, S. B. Beresford, G. B. Hawley, G. W. Russell, P. W. Ellsworth, E. K. HUNT, J. S. Butler, J. C. Jackson, A. W. Barrows, Thomas Miner, William Porter, John F. Wells, William R. Brownell, P. M. Hastings, Edward Brinley, George Clary, W. H. Tremaine, Lucian S. Wilcox, Henry P. Stearns, S. O. Preston, I. W. Lyon, Melancthon Storrs, Daniel Pall, E. R. Cutler, H. S. Fuller, John O'Flarity, Nathan Meyer, Wm. Hudson, G. C. Jarvis, A. E. Merrill, David Crary.

BERLIN, E. Brandegge.

BLOOMFIELD, Henry Gray.

BRISTOL, Roswell Hawley.

BROADBROOK, E. K. Leonard.

CANTON, Collinsville, R. H. Tiffany.

EAST GRANBY, Chester Hamlin.

EAST HARTFORD, S. L. Childs, Edward R. Brownell.

EAST WINDSOR HILL, Sidney W. Rockwell, William Wood.

Warehouse Point, Marcus E. Fink.

ENFIELD, Thompsonville, Edward F. Parsons.

FARMINGTON, Frank Wheeler, Charles Carrington.

Plainville, G. A. Moody, D. L. Lounsbury.

GRANBY, North, Francis F. Allen.

GLASTENBURY, H. C. Bunce.

South Glastenbury, O. E. Hammond, G. A. Hurlbut.

MANCHESTER, William Scott.

South Manchester, Sabin Stocking.

NEW BRITAIN, B. N. Comings, S. W.

Hart, Geo. Clary, C. R. Hart.

ROCKY HILL, R. W. Griswold.

SIMSBURY, Tariffville, G. W. Sanford.

Westogue, R. A. White.

SOUTHINGTON, Julius S. Barnes, N. H.

Byington, F. A. Hart.

SUFFIELD, Aretus Rising, O. W. Kellogg, A. K. Mason.

WEST GRANBY, Justus D. Wilcox.

WEST HARTFORD, Edward Brace.

WETHERSFIELD, E. F. Cook, A. S. Warner.

WINDSOR, A. Morrison, S. A. Wilson.

NEW HAVEN COUNTY.

ALVAN TALCOTT, M. D., of Guilford, Chairman.

GEORGE A. WARD, M. D., of New Haven, Clerk.

NEW HAVEN, Samuel Punderson, A. S. Mooson, NATHAN B. IVES, E. H. Bishop, Levi Ives P. A. Jewett, David L. Daggett, George O. Sumner, David A. Tyler, Henry Bronson, E. A. Park, S. G. Hubbard, H. W. E. Matthews, C. A. Lindsley, Worthington Hooker, T. H. Totten, John Nicoll, Moses C. White, H. Pierpont, J. H. Beecher, Leonard J. Sanford, Charles L. Ives, Edward Bulkley, Jr., W. B. DeForest, T. Beers Townsend, Geo. A. Ward, Evelyn L. Bissell, T. H. Bishop, Thomas N. DeBowes, Eli W. Blake, Henry A. DuBois, Francis Bacon, C. O. Stockman, J. W. Barker, Charles A. Gallagher, Chas. S. Ward, Robert Stone, William D. Anderson, W. Lockwood Bradley, A. E. Winchell, O. F. Treadwell, H. Carrington, George F. Barker.

Fair Haven, Chas. S. Thomson, W. H. Thomson, Wm. M. White.

BRANFORD, H. V. C. Holcomb, Newton B. Hall.

CHESHIRE, A. J. Driggs.

DERRY, Charles H. Pinney.

Birmingham, Ambrose Beardsley.

Ansonia, C. W. Sheffrey.

GUILFORD, Joel Canfield, Alvan Talcott.

HAMDEN, Edwin D. Swift.

MADISON, D. M. Webb.

MERRIDEN, (West,) B. H. CATLIN, Asa H. Churohill, James G. Bacon, Jas. J. Averill, Frederick J. Fitch, Nehemiah Nickerson.

MILFORD, Hull Allen, L. N. Beardsley, Thomas Dutton.

NAUGATUCK, J. D. Mears, S. O. Bartlett, Frank G. Tuttle.

NORTH BRANFORD, Sheldon Beardsley.

NORTH HAVEN, R. F. Stillman.

ORANGE, West Haven, H. W. Painter, J. Martin Aimes.

OXFORD, Lewis Barnes.

SEYMOUR, Joshua Kendall, Thos. Stoddard, S. C. Johnson.

SOUTHBURY, A. B. Burritt.

South Britain, N. C. Baldwin.

WALLINGFORD, Nehemiah Banks.

WATERBURY, G. L. Platt, John Deacon, George E. Perkins, Philo G. Rockwell, Thos. Dougherty, Alfred North Edward L. Griggs.

NEW LONDON COUNTY.

GEO. E. PALMER, M. D., of Stonington, Chairman.

ALBERT T. CHAPMAN, M. D., of Mystic, Clerk.

NEW LONDON, Nathaniel S. Perkins, ISAAC G. PORTER, William W. Miner, D. P. Francis, Robert A. Manwaring, Robert McCurdy Lord, L. P. Weaver, A. W. Nelson.

NORWICH, Richard P. Tracy, Erastus Osgood, Elijah Dyer, Elisha Phinney, A. B. Hails, Edwin Bently, Lewis S. Paddock, Chas. M. Carleton, F. C. Abbott.

ROKERAH, Samuel Johnson.

COLCHESTER, Ezekiel W. Parsons, Frederick Morgan.

FRANKLIN, ASHBEL WOODWARD.

Greenville, Wm. Witter.

GROTON, Mystic River, A. W. Coates, John Gray.

Noank, Orriu E. Miner.

LEBANON, Ralph E. Green.

MYSTIC, Mason Manning, Albert T. Chapman.

OLD LYME, Richard Noyes.

PRESTON, Eleazar B. Downing.

SPRAGUE, J. R. Fairbanks.

STONINGTON, George E. Palmer, William Hyde, Jr.

Mystic Bridge, E. Frank Coates.

FAIRFIELD COUNTY.

SAMUEL S. NOYES, M. D., of New Canaan, Chairman.

GEORGE L. BEERS, M. D., of Bridgeport, Clerk.

FAIRFIELD, S. P. V. R. Ten Broeck.*

Greenfield, Rufus Blakeman.*

Southport, Justus Sherwood.*

BRIDGEPORT, William B. Nash.* David H.

Nash, Robert Hubbard, Hanford N.

Bennett, H. L. W. Burritt, Elijah Greg-

ory, George L. Beers, Andrew I. Smith,

Augustus H. Abernethy, George F.

Lewis.

BROOKFIELD, A. L. Williams.

DANBURY, E. P. Bennett.* James Bald-

win.* William C. Bennett, Frank W. H

Young.

BETHEL, A. C. Benedict.

DARIEN, Samuel Sands.

GREENWICH, James H. Hoyt.

HUNTINGTON, James H. Shelton.*

EASTON, Waite R. Griswold.*

NEW CANAAN, Samuel S. Noyes,* Lewis

Richards,* William B. Brownson.

NORWALK, John A. McLean,* Ira Grego-

ry,* Samuel Lynes, John W. McLean,

James E. Barbour.

South Norwalk, M. B. Pardee.

RIDGEFIELD, O. S. Hickok.

STAMFORD, N. D. Haight,* Lewis B. Hurl-

but, W. H. Trowbridge.

North Stamford, George W. Birch.

STRATFORD, William T. Shelton,* Roger

M. Gray.

TRUMBULL, George Dyer.*

WESTPORT, George Blackman,* William

Badger, George B. Bouton.

WILTON, A. E. Emery.

WINDHAM COUNTY.

HARVEY CAMPBELL, M. D., of Voluntown, Chairman.

SAMUEL HUTCHINS, M. D., of West Killingly, Clerk.

WINDHAM, E. Huntington.

ASHFORD, John H. Simmons.

BROOKLYN, James B. Whitcomb, William

Woodbridge.

CANTERBURY, Joseph Palmer.

CHAPLIN, Orrin Witter.*

HAMPTON, Dyer Hughes, Jr.*

KILLINGLY, Justin Hammond.*

South Killingly, Daniel A. Hovey.

West Killingly, Samuel Hutchins.

East Killingly, Edwin A. Hill.

PLAINFIELD, WM. H. COGSWELL.*

Central Village, Charles H. Rogers.

POMFRET, Hiram Holt,* Lewis Williams.

PUTNAM, H. W. Hough, Daniel B. Plymp-

ton, John Witter.

SCOTLAND, Calvin B. Bromley.

PLAINFIELD, Moosup, Wm. A. Lewis.

THOMPSON, Lowell Holbrook, Charles

Hosford.

VOLUNTOWN, Harvey Campbell.*

WOODSTOCK, Lorenzo Marcy.*

North Woodstock, Asa Witter.*

West Woodstock, Milton Bradford.

Willimantic, Fred'k Rogers, Chas. Bliss.

Westford, F. O. Bennett.

LITCHFIELD COUNTY.

SAMUEL T. SALISBURY, M. D., of Plymouth, Chairman.

J. G. BECKWITH, M. D., of Litchfield, Clerk.

LITCHFIELD, Josiah G. Beckwith, H. W.

Bull, D. E. Bostwick.

CORNWALL, (West Cornwall,) S. W. Gold,

Edward Sanford, Burritt B. North.

MORRIS, Garry H. Miner

NEW MILFORD, Henry S. Turrell

Gaylordsville, G. H. St. John, Charles F.

Couch.

NORFOLK, William W. Welch, John H.

Welch.

PLYMOUTH, Samuel T. Salisbury.

Thomastown, William Woodruff.

* Over sixty years of age.

ROXBURY, Myron Downs.	WASHINGTON, Remus M. Fowler.
SALISBURY, (Lakeville,) Benj. Welch, Wm. Bissell, H. M. Knight.	New Preston, Sidney H. Lyman, Edward H. Lyman.
SEABOARD, Ralph Deming, William W. Knight.	WINCHESTER, (West Winsted,) James H. Welch, John W. Bidwell.
TOKRINGTON, Erastus Bancroft.	WOODBURY, Charles H. Webb, Harmon W. Shove.
WOLCOTTVILLE, Jeremiah W. Phelps, T. I. Hanchett.	WATERTOWN, W. S. Munger.
WARREN, John B. Derickson.	Rianth, Francis J. Young.

MIDDLESEX COUNTY.

IRA HUTCHINSON, M. D., of Cromwell, Chairman.

MINER C. HAZEN, M. D., of Haddam, Clerk.

MIDDLETOWN, CHARLES WOODWARD.	EAST HADDAM, Datus Williams.
Elisha B. Nye, George W. Burke, William B. Casey, John Ellis Blake, Rufus Baker.	ESSEX, Alanson H. Hough, Charles H. Hubbard.
CHATHAM, (Middle Haddam,) Albert B. Worthington.	HADDAM, Miner C. Hazen.
CHESTER, Sylvester W. Turner.	KILLINGWORTH, G. P. Reynolds.
CLINTON, Denison W. Hubbard.	OLD SAYBROOK, Asa H. King.
CROMWELL, Ira Hutchinson.	PORTLAND, George O. Jarvis.
DURHAM, R. W. Mathewson.	SAYBROOK, (Deep River,) Edwin Bidwell.
	WESTBROOK, Horace Burr.

TOLLAND COUNTY.

WILLIAM H. RICHARDSON, M. D., of Mansfield, Chairman.

GILBERT H. PRESTON, M. D., of Tolland, Clerk.

TOLLAND, Oliver K. Isham,* G. H. Preston.	Mansfield Center, Earl Swift,* O. B. Griggs.
BOLTON, Chas. F. Sumner.	Mansfield Depot, Norman Brigham.*
COLUMBIA, Moses H. Perkins.	SOMERS, Orson Wood.*
COVENTRY, John B. Porter,* Maurice Bennett.	STAFFORD, Wm. N. Clark.
South Coventry, Timothy Dimock,* Henry S. Dean.	West Stafford, Joshua Blodgett.*
ELLINGTON, J. A. Warren.	Stafford Springs, O. B. Newton.
HERMON, Orrin C. White.*	VERNON, N. Gregory Hall.
MANSFIELD, Wm. H. Richardson.	Vernon Depot, A. B. Goodrich.
	Rockville, Stephen G. Risley, Francis L. Dickinson, J. B. Lewis.

* Over sixty years of age.

SUMMARY OF MEMBERS, APRIL 1, 1867.

	Total	Deaths
Hartford County,.....	72	3
New Haven County.....	86	0
New London County, ...	34	0
Fairfield County,.....	44	1
Windham County,.....	29	0
Litchfield County, ...	33	0
Middlesex County,.....	20	0
Tolland County,.....	23	1
	341	5

NOTE.—Former Fellows of the Connecticut Medical Society are *permanent members* of the Annual Convention, and take part in all the proceedings of the Convention, except the election of Officers and Standing Committees. All the members of the Society are invited to be present at the meetings of the Convention.

DEATHS OF MEMBERS DURING THE YEAR ENDING APRIL 1, 1867.

Fairfield County.

William Henry Hine, son of Newton Hine, born at Waterbury, Conn., October 18, 1840, graduated at the Medical Institution of Yale College, January, 1864; settled at East Bridgeport in the same year, where he died of typhoid fever, November 12th, 1866.

Hartford County.

Asahel Thompson, of Farmington, of Prostatitis, aged 76 years.

Lewis Gaynor, of Hartford, of Consumption, aged 32 years.

Samuel H. Hall, of Hartford, of Diphtheria, aged 29 years.

Tolland County.

Eleazer Hunt, M. D., of Coventry, died March 14th, 1867, of old age, aged 80 years.

LIST OF ADDRESSES AND DISSERTATIONS

DELIVERED IN CONVENTION:

- 1793 President's Address, by Dr. Leaveritt Hubbard.
1794 Prize Essay on Autumnal Bilious Fever, by Dr. S. H. P. Lee.
1794 Prize Essay on the Properties of Opium, by Dr. G. Shepherd.
1795 Eulogy on Dr. L. Hubbard, by Dr. Eneas Monson, President.
1795 Prize Essay on the Preparation of Antimony, by Dr. F. P. Ouyere.
1795 Prize Essay on the Different Species of Colic, by Dr. T. Betts.
1796 Prize Essay on the Contagion of Yellow Fever, by Dr. F. P. Ouyere.
1796 Prize Essay on Cynanche Tonsillaris, by Dr. S. H. P. Lee.
1796 Prize Essay on the Most Eligible Mode of Increasing Medical Knowledge in this State, by Dr. Lewis Collins.
1796 Prize Essay on the same subject, by Dr. Gideon Shepherd.
1798 History of a Case of Bilious Concretion, by Dr. L. Hopkins.
1798 An Essay, by Dr. Jared Potter.
1799 A Dissertation, by Dr. Thaddeus Clark.
1800 A Dissertation on Lunacy, by Dr. Nathaniel Dwight.
1804 Essay on the Stafford Mineral Waters, by Dr. S. Willard.
1812 Essay on the Necessity of a Hospital for Lunatics in this State, by Dr. Nathaniel Dwight.
1817 Dissertation on the Deleterious Effects of Ardent Spirits, by Dr. W. R. Fowler.
1818 On Ergot, by Dr. William Buel.
1820 Dissertation on Typhus Fever, by Dr. Thomas Miner.
1821 Dissertation on Uterine Hemorrhage, by Dr. Samuel Rockwell.
1822 Dissertation on Yellow Fever at Middletown, by Dr. Wm. Tully.
1823 Dissertation, by Dr. Dyer T. Brainard.
1829 Dissertation on Extra Uterine Conception, by Dr. Geo. Sumner.
1830 Dissertation on Diseases of the Ear, by Dr. Charles Hooker.
1835 Dissertation on the Vitality of the Blood, by Dr. B. Welch, Jr.
1836 Influence of Moral Emotions on Disease, by Dr. E. H. Bishop.

- 1837 An Address by the President, Dr. Thomas Miner.
- 1837 A Dissertation on Scarlet Fever, by Dr. Archibald Welch.
- 1838 A Dissertation on Spinal Irritation, by Dr. Isaac G. Porter.
- 1839 A Dissertation on the Mental Qualifications Necessary to a Physician, by Dr. Henry Bronson.
- 1840 A Dissertation on the Advantages of Prompt and Efficient Practice in Acute Diseases, by Dr. Richard Warner.
- 1841 An Address by the President, Dr. Silas Fuller.
- 1841 A Dissertation on Insanity as a Subject of Medical Jurisprudence, by Dr. Amariah Brigham.
- 1842 A Dissertation on Uterine Irritation, by Dr. Charles Woodward.
- 1843 An Address by the President, Dr. Elijah Middlebrook.
- 1843 A Dissertation on Phlebitis, by Dr. Pinckney W. Elsworth.
- 1845 A Dissertation on the Respect due to the Medical Profession, and the Reasons that it is not awarded by the Community, by Dr. Worthington Hooker.
- 1845 A Dissertation on Laryngismus Stridulus, by Dr. N. B. Ives.
- 1845 Prize Essay on Scarlatina, by Dr. P. W. Ellsworth.
- 1846 A Dissertation, Practical Observations on Typhus Fever, by Dr. Theodore Still.
- 1847 A Dissertation on the Importance of a Medical Organization, and the Advantages resulting from it, by Dr. E. K. Hunt.
- 1848 A Dissertation on Some Forms of Non-Malignant Disease of the Cervix Uteri, by Dr. B. Fordyce Barker.
- 1849 An Address by the President, Dr. Archibald Welch.
- 1849 A Dissertation on Hygiene, by Dr. Alvan Talcott.
- 1850 A Dissertation on Medical Jurisprudence, by Dr. J. C. Hatch.
- 1851 An Address by the President, Dr. George Sumner, on the Early Physicians of Connecticut.
- 1853 An Address by the President, Dr. Rufus Blakeman, on the Early Physicians of Fairfield County.
- 1853 A Dissertation on Popularizing Medicine, by Dr. S. Beach.
- 1854 A Dissertation on Diseased Cervix Uteri, by Dr. Wm. B. Casey.
- 1855 A Dissertation on Registration as the Basis of Sanitary Reform, by Dr. Stephen G. Hubbard.
- 1857 An Address by the President, Dr. Benjamin H. Catlin, on the Connecticut Medical Society.
- 1857 A Dissertation on the Medical Profession, by Dr. Benj. D. Dean.
- 1858 An Address by the President, Dr. Benjamin H. Catlin, on the Claims of the Regular Medical Profession to the Confidence of the Community.

- 1859 An Address by the President, D. Ashbel Woodward, being an Historical Account of the Connecticut Medical Society.
- 1859 A Dissertation on the Issue, by Dr. Rufus Baker.
- 1860 An Address by the President, Dr. Ashbel Woodward, on Medical Ethics.
- 1860 An Address on Hygiene, by Dr. A. B. Haile.
- 1861 An Address by the President, Dr. Ashbel Woodward, on Life.
- 1861 A Dissertation on Hereditary Predisposition, by Dr. J. B. Lewis.
- 1862 An Address by the President, Dr. Josiah G. Beckwith, on Medical Progress.
- 1862 A Dissertation, being a Review of the Present State of the Question of Spontaneous Generation, by Dr. M. C. White.
- 1863 An Address by the President, Dr. Josiah G. Beckwith, on the Dignity and Grandeur of the Medical Profession.
- 1863 A Dissertation on Logic applied to Medical Science, by Dr. J. C. Jackson.
- 1864 An Address by the President, Dr. E. K. Hunt, on Inert Practice in Disease.
- 1864 A Dissertation on Scarlatina, by Dr. P. M. Hastings.
- 1865 An Address by the President, Dr. E. K. Hunt, on Public and Benevolent Institutions and Movements, with which the Connecticut Medical Society has been Prominently Identified.
- 1865 A Dissertation on the Mothers of New England, by Dr. J. E. Blake.
- 1865 Prize Essay on Prophylaxis as it relates to Phthisis Pulmonalis, by Dr. George W. Burke.
- 1866 An Address by the Vice President, Dr. Isaac G. Porter, on the Medico-Chirurgical Lessons of the War.
- 1866 A Dissertation on Prophylaxis of Phthisis Pulmonalis, by Dr. C. L. Ives.
- 1866 Prize Essay on Therapeutic Value of Mercury and its Preparations, by Dr. C. L. Ives.
- 1867 An Address by the President, Dr. Isaac G. Porter, on the Self Restorative Power in the Light of Modern Science.
- 1867 A Dissertation on the Value of Milk as an Article of Diet for the Sick, by Dr. Robert Hubbard.

APPENDIX A.

Report of the Committee of Examination.

Your Committee on Examination beg leave to report that, since the last meeting of this Society, two examinations have been held at the Medical College, in conformity to the amendment of its Charter, passed in 1866. At the commencement Examination, held July 24th, 1866, there were present, on the part of this Society, J. G. Porter, M. D., President ex-officio, Wm. B. DeForest, M. D.; Ira Hutchinson, M. D., and H. M. Knight; and on the part of Yale College, Professors Hooker, Silliman, Lindsley, Bacon and Sanford. The following persons were examined and recommended for the Degree of M. D. :—

MYRON NEWTON CHAMBERLAIN, A. B., New Haven. Thesis, Hydrophobia.

CORNELIUS J. DuBOIS, LL. B., New Haven. Thesis, Asthma.

ROBERT SHOEMAKER IVES, A. B., New Haven. Thesis, Anæsthetics.

GEORGE FREDERICK LEWIS, Bridgeport. Thesis, Glycerine.

DEXTER LOUIS LOUNSBURY, Naugatuck. Thesis, Small Pox.

GEORGE REUBENS SHEPHERD, New Haven. Thesis, Ovarian Dropsy.

The Committee, having finished the Examination and appointed Wm. B. DeForest, M. D., to report the proceedings of the Board to this Society, adjourned on the same day.

The last session of your Committee, styled the Annual Examination, was held at the Medical College, January 9, 1867.

Present, on the part of the State Medical Society, Isaac G. Porter, M. D., President ex-officio, New London; William B. DeForest, M. D., New Haven; Hanford N. Bennett, M. D., Bridgeport; Ira Hutchinson, M. D., Cornwall; Henry M. Knight, M. D., Lakeville. On the part of Yale College, Professors Worthington Hooker, M. D.,

Benjamin Silliman, M. D., S. G. Hubbard, M. D., O. A. Lindsley, M. D., F. Bacon, M. D., and L. J. Sanford, M. D.

The Theses of the following persons, candidates for a degree, had been submitted to the Dean of the Faculty, "at least two weeks before the day of examination" of the candidates, in accordance with a vote of the Board at their meeting in July, and had been distributed among the Professors of the College for examination. Upon the favorable report of the Theses thus presented, and after a careful examination of each person by the Committee, the following Candidates were passed for the Degree of M. D. :—

ALBERT JOSEPH AINEY, New Milford, Penn. Premium Thesis, "On the Science of Medicine."

THEOBOLD BAIRD, East China, Michigan. Thesis, "On the Relation of the Medical Profession to Science."

DANIEL TYLER BROMLEY, Scotland. Thesis, "On Poisons and their Antidotes."

CORNELIUS WADE BULL, B. A., New Haven. Thesis, "The Claims of Medicine as a Science."

CHARLES HENRY LEWIS, B. A., Chatham, Ill. Thesis, "On Scarlatina."

THOMAS TAYLOR MINOR, New Haven. Thesis, "On Recent Theories in regard to the Pathology of Phthisis Pulmonalis."

HENRY POTTER, New London. Thesis, "On Miasmata, Contagion and Infection."

At the conclusion of the Examination, Robert Hubbard, M. D., of Bridgeport, was chosen to deliver the usual address to the Candidates for a degree of the Class of 1868, and E. K. Hunt, M. D., of Hartford, to the Candidates of the Class of 1869.

The Prize, of a Pocket Case of Instruments, offered by Professor Hooker to the Candidate who should sustain the best Examination, was unanimously voted to Theobold Baird.

The Prize, of \$25.00, offered by Dr. H. N. Bennett, of Bridgeport, "for the best anatomical preparation of any of the important surgical regions," was awarded to no single competitor. The two anatomical preparations presented to the Committee of Award, were considered so nearly alike meritorious, that they thought fit to divide the prize, and they awarded to Julian H. Parker, \$15.00, and to Edward T. Ward, \$10.00

On Thursday evening, the concluding exercises were held in the Lecture Room of the College, in the following order :—

1. Prayer by President Woolsey.
2. Address to the Candidates, by L. S. Paddock, M. D., of Norwich.
3. Valedictory Address, by C. W. Bull, A. B., a member of the Class.
4. Presentation of the Prizes, by J. G. Porter, M. D., President of the Convention.
5. Degrees conferred by President Woolsey.

The programme was carried out with ability, and the interest of a large and intelligent audience fully maintained, until the Benediction was pronounced by the President of the College.

Thus, after a session of two days, your Committee closed their labors, more fully impressed with the ability and fidelity of the Professors, and with the belief that they are slowly, but surely, raising the standard of Medical Education.

All of which is respectfully submitted,

WM. B. DeFOREST, *Secretary.*

NEW HAVEN, May 23, 1867.

APPENDIX B.

Report of Prize Committee.

The Committee to whom was assigned the duty of selecting subjects for Dissertations, and awarding the Jewett and Russell Prizes, would respectfully Report:—That they selected for the Jewett Prize, to be awarded in 1867, the question, "*By what hygienic means may the health of armies be best preserved.*" The conditions affixed to the offer of this prize, will be found in detail, in Appendix B., in the printed Transactions for 1866. The Committee selected for the subject of the Russell Prize, to be awarded in 1868, "*The Therapeutic Uses and Abuses of Quinine and its Salts.*" Besides the offer made in the Transactions, notices of the subjects, and conditions of both the Jewett and Russell Prizes were sent to most of the Medical Journals in the United States and the Canadas. In some of the Journals the notice was published and paid for as an advertisement, at rates below the ordinary charges. Dr. Davis, Editor of the Chicago Medical Examiner, and Dr. Bowling, one of the Editors of the Nashville Journal of Medicine, most cheerfully agreed to publish the notice without charge.

On the subject proposed for the Jewett Prize, the Committee have received four Essays, which they have carefully examined, and all of which they consider valuable papers; but the Committee have decided, in accordance with the right reserved in their offer, to defer awarding the prize, until opportunity is given for further competition.

Respectfully submitted,

B. H. CATLIN, M. D.,
Chairman of Prize Committee.

APPENDIX C.

Prizes offered by the Conn. Medical Society for 1868.

The undersigned, a Committee of the Connecticut Medical Society, offer, in behalf of said Society, the following Prizes, to be awarded in May, 1868, viz: They renew the offer of the Jewett Prize of Two Hundred Dollars, for the best essay on the question, "*By what hygienic means may the health of armies be best preserved?*"* They also offer the Russell Prize of Two Hundred Dollars, for the best essay on the subject "*The Therapeutic Uses and Abuses of Quinine and its Salts.*"

The offer of both these prizes is extended to all physicians and surgeons of the United States, and of the British Provinces of North America. In awarding the Prizes, the Committee will feel authorized to regard the literary merits, as well as the professional and scientific value of the papers submitted; and should none be received which they think worthy of such generous prizes, they may take the liberty of withholding their decision until the offer can be renewed.

Competitors will send their essays, free of expense, to one of the Committee, on or before the first of March, 1867, each having on it a motto or device, which shall also be written or placed on a sealed envelope, inclosing the writer's name and address. The unsuccessful essays will remain with that member of the Committee in whose hands they were originally placed, subject to the order of their respective authors.

[It has been stated, that a degree of health which is unusual prevailed in the Union armies during the late war, and the mortality from disease was much below the average in the great military campaigns of Europe. Is there truth in the statement? If true, to what extent is it so, and why is it? What are the facts? What is the explanation? These are transcendently important questions, to which the Committee can find no answer in the essays which have been offered for the Jewett prize. They would not presume to direct the inquiries of competitors, but in this way, (parenthetically, as it were,) suggest a topic for consideration.]

BENJAMIN H. CATLIN, M. D., of West Meriden, LEONARD J. SANFORD, M. D., of New Haven, HENRY BRONSON, M. D., of New Haven, MELANCTHON STORRS, M. D. of Hartford, CHARLES L. IVES, M. D., of New Haven,	}	Com- mittee.
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* Those who forwarded essays on this question last year, are requested to let them remain until a decision is made, or recall them, through a friend, for alteration.

EDITORIAL NOTICE.

THE Committee of Publication would take this opportunity of reminding the Society that the character and value of its yearly issue must depend mainly upon the exertions of the individual members. To this end they desire earnestly to impress upon each the obligation, for the general good, of furnishing communications upon such questions of general interest as their personal experience or reflection has especially tended to elucidate. Reports of solitary cases, unless to suggest or establish some main principle, are suited rather to the pages of a medical journal than to a publication like this, issuing but once a year.

The Committee would call especial attention to the fact that a By-Law of the Society requires that *all communications designed for publication, must be placed in the hands of the Publishing Committee at least ONE WEEK BEFORE the meeting of the Convention.*

The attention of Contributors is directed to the RUSSELL AND JEWETT PRIZES, offered in Appendix C, for which general competition is invited from all parts of the United States and British Provinces.

NOTICE.

The American Medical Association is making great efforts to raise the standard of Medical Education, and improve the profession.

Every member of a Medical Society is benefitted, more or less, by these labors, and *should* aid the Association by taking its published Transactions. Any one who will remit by mail Five Dollars to the subscriber, shall receive by return mail a receipt, and when the volume is published, it shall be delivered, free of expense, in Hartford, New Haven, or Meriden, as directed.

B. H. CATLIN, M. D.

WEST MERIDEN, June, 1867.

P. S.—The volume for 1867 is ready for the printer, and will be issued as soon as the funds are provided.

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The next Annual Convention will meet in New Haven, at 11 A. M., the Fourth Wednesday in May, 1868, and continue in session the following day.

CIRCULAR.

DEAR SIR:—

At the last Annual Convention of the State Medical Society, held at New Haven, the undersigned were appointed a Committee to present to the individual members of the Profession the advantages of the new plan of finance, which has lately been ratified by the several County Societies.

It must be evident to all, that in the old debenture system some serious defect existed, which demanded a change. While the payment of the traveling expenses secured the attendance of most of the Fellows, the amount required for that purpose used up the taxes to such an extent that no means were left for publishing the proceedings, and doing anything additional to elevate the literary character and dignity of the profession. The officers were elected—the ordinary Committees appointed and business transacted, and the Fellows then returned to their homes, without accomplishing much to reach those who were not members of the Convention.

In 1861 an effort was made "to re-organize the Society on a more voluntary basis," the objects being, to raise more funds,—secure valuable matter for the Proceedings, and popularize the Annual Conventions. To attain the first object, the debenture system was abolished, and the tax imposed on all alike, irrespective of age,—for the second, a resolution was passed, looking to the diffusion of medical literature; and to secure the third, the meetings were to be held in the several Counties, and a dinner, to which all the members of the Profession were welcome, was to be provided at the expense of the Society. This plan, which was a great improvement on the old one, did not meet with general favor,—the older members, who had previously been exempt from taxation, feeling aggrieved at its renewal, and in many instances refusing to pay,—while it is be-

lieved that the Profession generally thought that the funds expended on a public dinner were misapplied, and would have been used to better advantage even in the payment of debentures. In 1861, the balance in the Treasury was \$59.17—in 1863, it had diminished to \$4.98; while, during the same term, the aggregate of unpaid taxes had increased about 50 per cent. Out of 35 Fellows elected, only 17 were present, and all the circumstances of the Society seemed to require a modification of the resolutions under which we had been acting for the previous two years.

At this juncture, the present plan was proposed,* and submitted to the consideration of the Profession at large, and the Committee have the satisfaction of reporting that, in the seven Counties which acted upon it, the several propositions were almost unanimously adopted.

The objects of the new plan were, to save unnecessary expense,—to increase the payment of taxes,—to secure a larger attendance at the Annual Convention, and “to diffuse and cultivate medical knowledge among the Faculty.” The first of these objects has already been advanced by dispensing with the public dinner,—the second is to be reached by appealing to the “*esprit du corps*” of the older members, instead of imposing a direct tax upon them, and by offering inducements to all the members to bring up their arrearages, and put themselves in a condition to receive any dividends or benefits that the state of the Treasury will allow—the third, by abating the taxes of the Fellows present at the Convention, (which, it is believed, will be as gratifying to many in this form of an honorarium, as it would be in a regular debenture bill,) and by making the meetings central and easily accessible, as formerly,—and the last, by increasing the value of the Proceedings, and by the distribution of medical literature.

In regard to the last proposition, it may be said, that it is not to be expected that books can be distributed every year, at our present rate of taxation, but it is reasonable to suppose that, with a general coöperation of the members, there may be a surplus of from \$100 to \$200 each year—that once in two or three years, several works of uniform price may be selected by an appropriate Committee, and a list of such works sent to each physician whose tax account is balanced:—he may then designate the one which shall be sent to him, as his portion or dividend. In this way publications could be obtained at wholesale price, and the libraries of all the Faculty would be gradually improved, their knowledge and skill increased, and the standing of the Profession at large

* See proceedings for 1864, page 5.

greatly elevated. In addition to this, suitable prizes could be offered, which would stimulate research and study, and tend to bring together a greater number at our Annual Conventions.

These are some of the advantages and results which are connected with the proposed plan; but, in order to give it the greatest success, a general and hearty response is needed. Shall we not give it a fair trial for four or five years at least?

We solicit an answer from you on this subject, and your coöperation in an endeavor to place the Treasurer in such a position as to be able to meet, promptly, the demands that may be made upon him. If arrearages exist, remittances may be made to the Treasurer, Dr. J. C. Jackson, at Hartford, or the Chairman of the Committee, at Middletown; either of whom is authorized to receive and account for the same.

Respectfully,

GEO. W. BURKE,
ASHBEL WOODWARD, } *Committee.*
B. N. COMINGS,

MIDDLETOWN, July 11th, 1864.

MEDICAL COMMUNICATIONS.

ARTICLE I.

INERT PRACTICE IN DISEASE.

Being the Annual Address delivered before the Convention, May 20th, 1884,

By the President of the Society,

EBENEZER K. HUNT, M. D., OF HARTFORD.

GENTLEMEN :

An excellent custom, so long and faithfully observed by my predecessors as to possess the weight of high authority, had not the action of the Society itself rendered it virtually imperative, has made it my duty to address you at this time, on some subject believed to be suited to the occasion ; one which, if it present no new truth, nor even a new or original view of principles or truths already known and established, shall yet encourage us to move forward in our chosen sphere, with convictions strengthened, and renewed trust in the future.

Nor can it justly be deemed other than a distinguished privilege, to be permitted to address the honored Fellows here assembled ; representing, as they do, the embodied wisdom and authority of our profession throughout the Commonwealth ; for whatever may be spoken, reaches the remotest townships ; and, if fitting and timely, enlightens, encourages and strengthens him who represents us there, no less than the larger, and in some respects more favored, class who pursue their professional avocations in the cities, villages and larger towns of our State.

The subject to which I propose to call your attention, may be denominated, " Inert practice in Disease ;" by which is meant, neither the use of medicinal agents in infinitesimal doses, nor of substances known to be destitute of effect in medicinal quantities ; but rather, the " waiting upon Nature," and employing the approved articles of

our *Materia Medica*, in such quantities only, and at such intervals, as in the experience of a vast majority of intelligent, discriminating and unprejudiced members of the profession, have no marked effect upon the vital forces, either in health or otherwise; and therefore produce no impression on disease, in its successive stages.

The idea, or notion, which leads its disciples to recommend the employment of medicinal agents, as thus indicated, is distinctly stated to be, that most human maladies have a definite and prescribed course, which, when once fairly begun, can neither be checked nor essentially modified, until their appropriate phenomena have terminated; when, without the interposition of art, disease ends.

Hence drugs, if not utterly wasted, perform but a very subordinate part in the treatment of disease, while, without the exercise of constant care on the part of the physician who uses them, the proper order of phenomena, or, in other words, the natural progress of the disease will be interfered with by his remedies, to such a degree as to increase its severity, and prolong its duration, if it do not, indeed, seriously jeopardize the life of the patient.

Medical learning, skill and experience, applied through medicinal agents, are, on this theory, to be for the most part ignored in the management of disease, while rest, freedom from excitement, and selections from the harmless *Pharmacopœia* of the kitchen, constitute the sum total of agencies that may lawfully be employed.

Several medical gentlemen, cotemporaries of ours, men of character and eminent in the profession hold, and eloquently advocate, substantially the foregoing views; differently expressed indeed, as enunciated and developed in the volumes and published discourses to which they have given rise; yet, both in spirit and language, making exceedingly prominent the idea of the controlling power of nature in disease, while all other agencies, calculated to impress the system, are to be employed, if employed at all, with extreme circumspection and care.

In the light of these views, let us contemplate briefly, and quite generally, the vast range of inflammatory, non-specific and nervous diseases, which constitute no small proportion of all which we are called to treat. Are these diseases self-limited? and may they safely be left to nature for their cure?

Is it safe to trust acute membranous croup, peritoneal inflammation, or that of any of the vital organs, to the control of nature solely? All experience proves, that without the early and active

interposition of art, the former speedily, and in a very large proportion of cases, terminates fatally. Few exceptions only exist, to prove the absoluteness of the rule.

Active inflammation of serous membranes, unless promptly and successfully attacked, soon terminate in adhesions of opposing surfaces, which are both incurable, and often seriously interfere with the proper performance of the organs or parts which they invest. As to the acute inflammation which attacks the parenchyma of organs; if violent and unresisted, it sometimes produces disorganization, terminating quickly in death; more frequently damaging their intimate structure, and forever after impairing their capacity to perform their appropriate offices.

Contrast, I pray you, with unprejudiced minds—for why should we regard the workings of disease otherwise than with a clear and unclouded vision—the results following the early and skillful treatment of any of the usual forms of inflammation, as it appears in sound and vigorous constitutions, whether of the young or of older persons, and the same diseases left to nature; or, what amounts to the same thing, treated by a temporizing or inert expectancy. The mind of the intelligent practitioner, who has year after year carefully observed the phenomena of acute inflammations, and noted and compared the results of every form of treatment, needs only to be called to the subject, to answer, with peculiar emphasis in favor of prompt and active, sometimes even heroic interposition.

So also, as to those forms of nervous disorder at once so common and distressing, do we not often witness the painful contrast presented between the consequences of no treatment, or of the disease left to nature, and that of early and appropriately applied remedies? And here let me say, that among this class we include hygiene, judiciously and skillfully applied, as eminently applicable; and often fulfilling the indications required, more happily than drugs, though usually their combination is to be preferred to the employment of either exclusively. So marked and striking often are the results of treatment in this form of disease, that we are disposed to regard the consequences of mismanagement or neglect, whether depending upon the pretentious ignorance of quackery, or a false theory, as something akin to murder; to use the mildest term, as an act highly censurable.

The gross impropriety of leaving any, suffering from either of

these several forms of disease, to the efforts of nature solely, is rendered the more conspicuous, when we reflect that, as experience teaches, they are in a majority of cases amenable to treatment, often promptly so, when it is early and skillfully employed; while later remedial agents avail little or nothing. None of them, moreover, when well pronounced, can be said to be, in any proper sense, self limited; and too often terminate, either in the death of the subject, or the irreparable injury of vital organs, with a consequent and proportionate impairment of function.

But what shall we say of the continued forms of fever, so called, and the contagious forms of eruptive disease? These doubtless constitute a class, both extensive and important, of self-limited diseases. Left to nature solely, aided by suitable nursing, they often pass through their successive stages, terminating ultimately in perfect restoration. The wise physician, however, does not on this account, though cheerfully admitting the fact, altogether withhold his attentions; willingly becoming in such cases the minister of nature. He neither attempts nor desires, in anywise, to interfere with the progress or natural sequence of phenomena; yet watches assiduously, and hesitates not to take such measures as his experience approves, to control actions irregular or not proper to the disease, whenever manifested, whether it be by excessive nervous irritation or mental excitement, by a tendency to congestion or by intercurrent inflammation, some one or other of which, is liable to occur in every case, to complicate and increase the hazard of the disease. It is, indeed, by watching for, discovering early, subduing quickly, and by appropriate remedies, these various complications, that the skill and usefulness of the physician are rendered most conspicuous to the well-informed observer. It may be safely asserted, that no class of diseases call for closer attention, require nicer discrimination as to the meaning or significance of symptoms, or the exercise of a sounder judgment in the selection and use of remedies, than the treatment of the diseases in question. The profound insensibility of his patient often leaves the physician without a guide, as to the extent and character of the impression made by his remedies upon the vital forces, except such as the pulse, the tongue, skin and excretions afford. These, however, are to him what the unerring magnet becomes to the tempest-tossed mariner, amidst darkness and storm; and under their lead, when propitious, he moves boldly on,

feeling confident that a brighter day will in due time dawn upon his patient.

Nor, in my opinion, are the febrile exanthemata, an exception to this general rule. Self-limited indeed they are, but not for this cause may they be left wholly and at all times to nature. The extreme perturbation of the organism to which they often give rise, is, if possible, to be measurably restrained and confined within due limits; for this very activity of the vital machinery, is not by any means without risk, nor can it be justly supposed, that benefit is to be derived from extreme vital reactions. Neither the eruption, nor other associate and natural phenomena, is in anywise improved, or hastened to an earlier conclusion by this instrumentality.

Like the important class of diseases just referred to, they always need the careful supervision, and not very unfrequently, the active interposition of the wise and judicious physician; by no means to be left to the foster-care of nature, because their duration may be limited to a certain determinate period.

It is unnecessary to consider in this place those constitutional forms of disease, over which neither nature nor art, as exhibited in the employment of agencies other than those principally surgical or mechanical, and rarely these, exercise any control; as the carcinomatous affections, in their various forms, Traumatic tetanus, Epilepsy, Phthisis, etc. With these nothing avails, so far as our knowledge extends, save the Euthanasia; themselves serving only to assuage, temporarily, the continued discomfort or positive distress which usually attends them, and smooth the passage to the tomb.

Such are the views, very briefly and generally expressed, which I entertain, respecting the province of the physician in the treatment of disease. The field for active effort is very broad and extensive; and the intelligent, discriminating and experienced, in the profession, will always find their services rewarded, by witnessing the happy results which attend and follow their labors. This, it seems to me, is as certain as any thing can be, outside the domain of mathematical science; though the cavalier, whether within or without our ranks, may yet insist that nature, or the inert practice which is here opposed, would in an equal degree have relieved pain, equalized the circulation, regulated secretions; and as speedily, and with equal certainty, restored to health those to whom we have ministered, and, as we believe, with abundant success.

Nor is it any argument against the soundness of the foregoing views and conclusions, that we do not invariably meet with success; or, in other words, do not always cure our patients. So great is the difference in constitutional vigor, so damaging the effect upon the vital forces produced by vicious indulgencies, when prolonged; so often do we find our patients prostrated by disease of the gravest character, following, if not induced by protracted over-exertion and its consequent exhaustion, as well as numerous other depressing agencies, that no reasonable mind could anticipate other than disastrous consequences, to follow any severe access of disease. "Flesh and blood," under the circumstances, is not equal to sustain itself, successfully, in such a conflict. The conditions of its existence forbid a different result.

It is not improper, also, to advert, briefly, to our daily observation of the direct and palpable results attending the use of several of those articles of the *Materia Medica* most commonly employed,—about which, it would seem that there could be no room for doubt or difference of opinion, were it not, that a voice is sometimes lifted against them from an unexpected quarter, and by those, too, whose intelligence and high respectability but add to our surprise,—as furnishing still further evidence of their wonderful efficiency and power over disease, when properly administered. We must be more than blind not to know that opium, in some one or other of its forms, and the class of nervines, are every day relieving untold sufferings; giving efficacy also to agents which, without them, would fail of their desired effects; that the stimulant and alterant impression of mercurials and tonics, severally and often together, produce the happiest effects upon disordered functions, which, were they not relieved by these agents, would exhaust the suffering organs, whose proper offices they, for the time, impair or pervert; that purgative and diaphoretic agents, when holding a proper relation to each other, open innumerable emunctories, and carry off much effete and poisonous matter; relieving a thousand disagreeable feelings and symptoms, sometimes the precursors of impending danger; in a word, that results of priceless value are every day occurring from the intelligent and discreet use of these and other like agents; furnishing abundant reason for a daily increasing confidence in them, and thankfulness to Heaven for having made us the almoners of the blessings they confer.

And as, under the most appropriate treatment, many inevitably die, for reasons before assigned, without in the least shaking our confidence in the efficacy of sound medical practice; so also, in regard to the articles constituting our *Materia Medica*, none need to doubt their virtues, nor to employ them with the less confidence, because they heal not all the maladies that afflict humanity, nor prolong the lives of those who are appointed to die.

It would be opposed to the view which an experience, by no means short or very limited in extent, has taught me to entertain, were it to be understood or inferred from the foregoing, that my judgment is opposed to the idea of recognizing the agency of nature and its tendencies, as exhibited in the development and successive phenomena of disease. Far from it. All of us are called upon, nay, required, by the fundamental principles of our calling, willingly to observe, and cheerfully to follow its leadings, whenever, and to whatever extent they can be ascertained and found conformable to a wise and extended experience. We should, indeed, often wait upon, and consult her apparent intentions and purposes; suspending, for the time, all agencies that might stifle, or render ambiguous her responses. I am greatly mistaken, if this doctrine does not prevail, and is not intelligently observed, by the entire brotherhood of practitioners throughout the Commonwealth.

None attempt to thwart or oppose nature, nor to substitute drugs or methods of their own devising, for her skillful and well-directed handiwork. We deny not that many things cannot be done without her interposition and aid; and at all times, whenever her unassisted efforts are equal to the task of relieving the sick and restoring them to health, we resign them wholly to her care, and are content.

Nevertheless, we view her, as has been intimated, as expressing in disease the distempered phenomena of the human organism, which, under the violent stimuli to which its advent often gives rise, is greatly oppressed, or moves with a frightful momentum; circumstances involving extreme danger, and over which conservative tendencies, for the time, exercise little, if any control.

In seasons of peril like this, it is especially proper for the physician to come to the rescue, with such artificial agencies as the arcana of our science afford, and relieve those disordered movements; doing all that can be effected towards restoring the natural func-

tions ; placing them, if possible, in such a condition that the vital forces, now relieved and indirectly strengthened, may carry forward to a perfect recovery, the work that artificial agencies have begun. On the same principle, only by opposite methods, to a certain extent, should we sustain the system under the otherwise overwhelming oppressions, whether congestive or otherwise, which too often characterize the onset of certain forms of disease ; employing active stimuli, both externally and internally, until the nervous and vascular functions have measurably regained their equilibrium, and are competent to conduct the further operations of the economy.

In all these, as well as a vast proportion of the more common cases, which together constitute the great field of medical practice, we may, I think, with the utmost propriety, without the exercise of vanity or an unbecoming self-esteem, deem ourselves the masters, while nature becomes our humble, yet most useful handmaid ; for intellect, cultivated and schooled in the art of healing, has made us, emphatically, the "Masters of the Situation."

There are two principal objections to the publication of such Treatises and elaborate Discourses as have recently been put forth on the subject we have been considering. Though known by other and attractive titles, they all come to nearly the same result, viz : "Inert practice in disease." One of these objections I conceive to be, that they greatly over-estimate the role which nature performs in the great drama of acute diseases, while they take it for granted, that her tendencies, in chronic maladies, are always, and by the shortest and most certain methods, towards a cure, which she will effect quite as soon, and with as much certainty, without, as by means of the aid which art can afford ; and, as a consequence, would, were their precepts observed, virtually tie up the hands of the physician, and make him, in fact, little more than a passive observer of the progress of the disease he is called to treat. In the hands of the timid practitioner, the influence of these views paralyzes all effort, and renders his professional ministrations wholly abortive. Referring, especially in obscure and difficult cases, to these high authorities, he would easily satisfy himself, with little study or investigation, that it were best to leave the patient to the fostering care of nature ; and if he attempted anything, it would be with a halting and unequal step, calculated, and half-designed, to accomplish nothing.

It may be further objected, that in the way in which the subject is treated in the class of works referred to, it becomes an appropriate pabulum, wherewith to supply the greedy appetite of the ignorant, knavish and vulgar. Superstitious and skeptical, as they usually are in regard to the efficacy of legitimate medical practice, they drink in, with unmixed delight, whatever may, at any time, fall from the lips or pens of medical men of repute, disparaging to approved practice, and holding up nature to their notice, as the only true physician.

It does not seem to myself that this pandering, indirectly and unintentionally, doubtless, to an already corrupt public sentiment, ever ready to seize upon anything novel or marvelous, however opposed to reason or facts, as to the matter in question, is at the present time demanded. A just estimate is placed, by the great mass of intelligent physicians, upon the relative power of nature and art over disease, and in its treatment, those smooth, plausible, and taking phrases, which advocate the "do nothing policy," can only serve to darken counsel and paralyze effort.

Let both these potent agencies be held in their proper relations, and then let the master intellect mould and adapt them to their respective purposes. Thus will the sick be soonest comforted and cured, and thus will the cultivated mind and skill of the practitioner soonest and most effectively assert their just supremacy.

There are also some physicians, whose published discourses, though not prepared, probably, with the direct purpose of propagating the same doctrine as that we have been considering, do yet refer, in terms at once expressive of disapproval, of much of the prevailing practice, and in the pungent language of satire, well-calculated to attract popular notice, and confirm the prejudices of the ignorant and vulgar; reaching the same end by a more circuitous but equally certain path.

By positive assertion on some points, by expressions of doubt and inuendo as to others, by satire and ridicule, they fill the minds of the weak and timid with vague apprehensions; causing them either to abjure medical practice altogether, or to follow its prescriptions with many painful misgivings. No preparation of the popular mind, more favorable for the ready embrace of quackery, could be desired by the most reckless and unprincipled charlatans, nor by one who desired to sap the foundations of medical science, than is

thus made ready to his hand. Now, the mass of physicians ever have felt, and probably will continue to feel aggrieved, whenever any of its members, directly or indirectly, appeal to a popular tribunal, to influence or to settle questions purely professional. Their errors, whether of principle or practice, they have a right to expect will be noticed by their medical brethren with a sort of confidential reserve; with a faithful frankness indeed, yet with a due regard to the feelings and self-respect of those who are made the subject of criticism.

One great advantage, among many which would result from such a procedure, would be, the securing of willing and friendly listeners, ready to entertain the views expressed, and to correct their supposed errors, if the reasons for change, urged by their friendly censor, should, on reflection, be regarded as correct.

On the whole, we may ask, both in friendship and good faith, for our own sake, as well as that of suffering humanity, of these sharpshooters in our ranks, that they put their weapons to a somewhat different use; at least, that they point them, when about to fire, at their enemies and ours, and the foes of mankind generally, and not at their best and truest friends.

In conclusion, permit me to express the earnest wish, that the Physicians of Connecticut may, all of them, justly estimate the relative power of nature and art, in the management of disease, and that neither gain an undue ascendancy over any, even the humblest; medicating with freedom and boldness, whenever the indications call for it; withholding remedies with equal freedom, when nature alone seems equal to the task of effecting a cure; combining them also, and trusting to their united power, whenever this seems to be the preferable course.

If, however, any be so unwise as to worship blindly at the shrine of this goddess, Nature, and, without discrimination and judgment, await, in a cold inert expectancy, her oft-times laggard movements, or attempt not to stay her fiery course, as she, on other occasions kindles the burning fevers in the blood or brain of his unhappy patients, we can only sympathize with him as he mourns over his ill-success; and little less with those who become the subjects of such treatment; yet, hoping that a suitable use of his experience may, sooner or later, open his eyes to his error, lead to a change in practice, and thus make him a more useful member of our profession.

Not less of evil, doubtless, attends the practice of him who ignores her agency, and makes art the sole object of his devotion. He will oftener, probably, challenge the admiration of wondering friends and neighbors, by his bold and decisive measures, and the faith of many in him will be less strong. Yet the wasting and enfeebled victim of Phthisis, and other forms of chronic and incurable disease, will, we may well believe, have little occasion to regard him as adding, by his treatment, to their few and fast passing hours, much less, as their preserver from impending death. Again I repeat, let each hold fast the true doctrine, which alone acknowledges, yet holds in their true and practical relations, as attested by the active faith of a vast majority of the brotherhood, both nature and art in the treatment of disease. By so doing, it is my firm conviction he will most certainly secure the approval of his deliberate judgment, the confidence and respect of society, and do the utmost possible to relieve the ills incident to our mortality.

ARTICLE II

SCARLATINA.

Being the Annual Dissertation read before the Convention, May 20th, 1861.

BY P. M. HASTINGS, M. D., OF HARTFORD.

THE modern theory, which attributes the phenomena of Scarlatina and allied diseases to the action of blood poisons, seems to me to be of great value in a practical point of view. The facts that the virus has so far escaped analysis, and that even the changes produced in the blood by its action are not understood, ought not yet to be considered as valid objections to this hypothesis, since we may expect further developments and more accurate knowledge from the improved means of observation constantly being furnished by science. Each disease must have a special poison of its own, which after a longer or shorter period of latency, excites changes in the blood, perhaps analogous to the process of fermentation, developing a set of symptoms which make up our idea of the disease, and to which we assign a name. The recognition of the laws which govern the development and progress of Zymotic diseases has had great influence in modifying medical treatment. At different periods of medical history the treatment of this class of diseases has varied greatly; owing in part no doubt to the peculiar type of successive epidemics, and in part to the views of their nature entertained by prominent physicians. The attempt to break up or violently interfere with the course of these diseases is no longer justified, and the intelligent physician contents himself with the effort to guide them to a successful issue.

These special animal poisons present this peculiarity—that while some develop symptoms indicating an exhaustion of their power, others are followed by the elimination of waste material, the result of their morbid action. In Mumps, the tumefaction of the parotid gland marks the termination of the disease or exhaustion of the virus, and no unusual throwing off of effete matter is noticed, while in Scarlatina and Measles large amounts of the products of diseased

action are thrown off. The former disease, thus definite and fixed in its character, is rarely attended by serious consequences, while the latter, from this process of elimination are often prolonged, giving rise to a great variety of complications and augmenting their fatality.

Without claiming any original or novel views, I propose to notice some of the principal phenomena presented by scarlet fever, their physiological and pathological significance, and my object will be to elucidate some of the principles which should guide us in the management of this disease. If no new truths are evolved, attention may be excited to some important points hitherto overlooked, or inquiry as to their value may be stimulated by this discussion.

Aside from the general symptoms common at the onset of all febrile diseases, we notice the peculiar color of the skin or scarlet efflorescence, the red tongue with enlarged papillae, the inflamed throat and swollen lymphatics, as essential characteristics of scarlatina. If one or more of these phenomena are wanting, we are perhaps enabled to determine the nature of the disease by circumstances surrounding the patient, or by the occurrence of what are ordinarily termed the sequelae. Occasionally, too, instances occur where the violence of the primary effects of the poison, or want of vital resistance on the part of the subject, prove fatal before the disease is developed. We do not propose to concern ourselves with these exceptional cases upon the present occasion. The natural history of this disease may be studied best in those simple cases which often occur during every epidemic, where either the amount of poison introduced is small, or where the constitutional vigor resists its action or where other modifying circumstances exist and the symptoms, mild yet decided and unattended with danger, are allowed to run their course unmolested. Such cases are sometimes overlooked by the physician, yet I think, they will be found instructive to the careful observer. The rash, the first characteristic symptom, commences upon the face, gradually extends over the entire surface of the body, and after a few days as gradually disappears, leaving the skin dry and rough and followed by a more or less abundant exfoliation of the cuticle. The redness of the tongue, mouth and throat gradually extends throughout the entire mucous membrane of the alimentary canal and kidneys, subsiding after a few days and followed by a similar shedding of the epithelium, as is proved

by the alvine discharges being accompanied by large amounts of this substance, while the urine contains an increased quantity of its ordinary scales, or it may be more or less albuminous in its character, but soon returning to its normal condition. The signs of exhaustion following these processes may be slight, but they are usually noticeable. In such cases it is fair to conclude that the poison and its products are eliminated by the discharges which have taken place from the cutaneous and mucous surfaces, as clearly as an irritant poison is expelled by the more violent operations of vomiting and purging when introduced into the intestinal canal.

Allow me to recall to your notice some of the facts relative to the structure and functions of those membranes which are so intimately concerned in this diseased action. The skin may be regarded practically as composed of two layers, the dermis or true skin, and epidermis or cuticle, formed from the blood contained in the capillary vessels. In this covering are to be found numerous ducts leading from sudoriferous glands and sebaceous follicles. An enormous amount of effete matter is thrown off by means of these glandulæ, in the form of perspiratory fluid holding various salts in solution, and in the oily matter designed for the lubrication of the cuticle in its normal condition. Indeed, recent investigations prove the skin to be the most important emunctory of the body, by far the largest amount of the products of destructive metamorphosis being eliminated from its surface. The epidermis is composed of cells formed from the plastic fluid which exudes from the blood vessels distributed to the skin. Cells of a globular form first make their appearance in this blastema or formative fluid, and as they reach the surface, becoming flattened by the exhalation of their fluid contents, they present the appearance of minute scales, which after performing their office of protection to the sensitive parts, fall off, giving place to their successors. Under some circumstances this process is carried on with great rapidity. After the removal of the epidermis by a blister, the dermoid surface is sometimes covered in a very few hours. The irritation of continued pressure upon any point causes a rapid reproduction of this layer which becomes thickened and hardened, the scales as they reach the surface becoming adherent and almost horny. The ducts of the glandulæ are blocked up by this accumulation, and such portions of the skin become dry and frequently cracked. The application of simple rubefacients greatly

increases the production of epidermic cells, and is followed by shedding of the cuticle from the surface of the affected portion.

The mucous membrane of the alimentary canal, lungs and kidneys, with some differences which are immaterial to the present discussion, is similarly constituted and furnishes similar products, is affected by irritants in an analogous manner and may be regarded as a simple continuation of the skin. An important distinction between the epidermic and epithelial cells should be noticed; the former when they reach the surface becoming dry, are less easily detached from their connections, while the epithelial scales are always kept soft and consequently more readily separated and not so liable to interfere with the functions of the mucous membrane. The skin and mucous membrane are vicarious in their action, an arrest of function in the one being followed by increased activity on the part of some portion of the other. The effects of sudden changes of temperature upon the skin afford familiar examples of this intimate relationship, an arrest of perspiration being followed by an increase in the quantity of urine excreted, while an increase of perspiration produces a diminution of this fluid. This vicarious office is not confined to the watery portion of these fluids, but includes the solid constituents of each secretion. The epidermic scales being largely composed of albumen, their accumulation upon the surface and consequent stoppage of the functions of the skin, sometimes is followed by an albuminous discharge from the kidneys, and this occurs apparently in the relation of cause and effect.

With this brief review let us return to the effects produced upon the functions of these membranes by the poison of scarlatina. It makes little or no difference whether we regard this virus as an additional element circulating with the blood, or in the light of a ferment which disturbs the proportions existing between the natural constituents of this fluid, the poison to be eliminated, or the excess to be cast out with the discharges which ensue.

I regard the efflorescence or redness of the skin as the primary distinctive symptom which presents itself in this disease. The exceptional cases before alluded to, I do not propose to consider on the present occasion. It being only in fully developed instances of scarlatina that the following phenomena are to be studied.

The rash is evidently caused by a rapid and intense congestion of the capillary vessels of the skin, and should be regarded as an effort of nature to rid the system of the poison or its products. The tume-

faction consequent upon this congestion arrests for the time the functions of the sweat glands and sebaceous follicles, and is followed by a more or less abundant exudation of the blastema or formative fluid, and during the succeeding days a rapid increase of epidermic cells takes place. This accumulation upon the surface blocks up the ducts of the glandulæ and the skin becomes dry and rough. The vessels relieved of their congestion by the exudation of a portion of their fluid contents, become relaxed, the rash gradually disappears, leaving the ordinary functions of the skin completely suspended. While this process has been going on, a similar condition begins in the mouth and throat, gradually extending throughout the entire extent of the mucous membrane. The redness of those portions exposed to view, the enlarged papillæ of the tongue, and the epithelial discharges which often occur, confirm this view. The disintegration of the tissues is accelerated by the general excitement which prevails, and consequently an increased amount of effete material is to be disposed of. In addition to its own functions, which are greatly impeded by its congested state, the mucous membrane must assume to some extent the vicarious office of the skin. This accumulation of waste matter produces an engorgement of the lymphatics, and consequent suppuration, so commonly noticed in the advanced stages of this disease. That the lymphatic ganglia of the neck are generally the seat of suppuration, is perhaps due to the circumstance that the portion of the mucous membrane lining the mouth and throat is more intensely inflamed than other parts. The accumulation of epithelial cells is not so rapid as the epidermic, since their moist constitution, as already stated, favors their separation from the mucous surface. Diarrhea of a mucus and epithelial character sometimes affords relief; or they may accumulate within the intestinal canal, to be expelled at a subsequent period.

I have before alluded to the fact that the kidneys are perhaps the most important agents in removing the effete matter ordinarily thrown off from the cutaneous surface. That the peculiar efflorescence of scarlet fever extends to the membrane lining their tubes I think is evident, from the circumstance not unfrequently to be observed, that in those mild cases, in which the functions of the skin are early restored by the complete exfoliation of the cuticle, a scanty secretion of urine, albuminuria and dropsy occur. Nor should I regard this condition as a sequela of this disease, so much

as an extension of the morbid process. Whether this view is admitted or not, we must conclude that their ordinary function is greatly increased by the inactive condition of the skin. Their inability to meet the demands made upon them, results in dropsical effusions so commonly fatal in the later stages of scarlet fever.

There is reason certainly for suspecting that the effect of the scarlatinal poison upon the blood is to largely increase its albuminous constituents, and that its elimination is more rapidly and thoroughly accomplished through the medium of the skin primarily, and by the mucous membrane of the intestinal canal and kidneys secondarily.

Whether this account of the morbid changes occurring in this disease be regarded as correct in all respects or not, enough has been stated, I think, to prove the important position occupied by the cutaneous and mucous surfaces in its progress. If it be objected that this is an imperfect and one sided history, that many troublesome and serious complications have been overlooked, it should be remembered that my expressed object was to limit myself to the consideration of the changes occurring upon these surfaces, and some of the reasons why these circumstances should always be prominent in its management.

The first indication I notice is, to watch carefully and if need be to assist in the complete exfoliation of the epidermis and consequent restoration of the functions of the skin. Popularly the rash or efflorescence of the surface is regarded as the most important symptom of scarlet fever, and if the considerations already offered are founded on a correct basis, this notion is a true one. If this congestion is too intense, means should be employed to moderate it, by blood-letting or by other depressing agencies. As the disease presents itself at the present period, these means are rarely required. If the rash is tardy in its appearance, or incomplete, it may be advisable to excite increased action by internal and external stimulation. The administration of alcoholic stimulants and the warm bath, aided by rubefacients, as mustard or pepper, over a part or the whole of the surface, will best attain this object. When the disease is ushered in by convulsions or other evidences of internal congestions, our readiest means of relief will be by acting upon the surface by these or similar agencies. More generally, however, interference is seldom called for at this period of the disease. After the

subsidence of the rash, we may gain important advantages by efforts to hasten the exfoliation of the cuticle, and thus aid in restoring the suspended functions of the skin. The warm or vapor bath will be found peculiarly adapted to this end; by softening the epidermic scales, and thus facilitating their separation, it tends to restore the activity of the exhausted capillaries. A few years since, it was the practice to anoint the surface with the rind of bacon. One of the reasons assigned for the benefit derived, was the protection afforded to the surface rendered preternaturally sensitive by its congested condition. I conceive, however, that the true explanation was to be found in the circumstance that the oil supplied to some extent the absence of the sebaceous secretion. The disagreeableness of this application has led to its disuse. Glycerin is neater and far more effectual in bringing about the desired result. Mixed with Cologne water in the proportion of one part glycerin to four or five parts of the former substance, it forms an agreeable wash and allays the troublesome itching so common at this period. This substance acts to some extent as a solvent of the dry epithelial scales, and, followed by friction, promotes their separation. If by these or similar means we succeed in restoring early the functions of the skin, the congestion of the throat or internal organs so commonly encountered, will be greatly modified if not wholly relieved. Of course this process will produce general exhaustion and require the administration of internal stimulants and tonics. The carbonate of ammonia is justly held in high repute in the treatment of this disease, but these agencies do not come within the scope of the present article.

The second indication I notice, arises from the congested condition of the lining membrane of the intestinal canal. Emetics of a mild character were formerly much used for freeing the stomach of its contents and determining the blood to the surface. Of late they are to a great extent neglected, and I think many times to the serious disadvantage of the patient. A mild cathartic is often advisable; it should generally be saline, for the reason that the drain produced by its action serves to relieve the capillaries of their fluid contents. When, as often happens, this congested state of the mucous membrane comes on before the functions of the skin are restored, as indicated by rapid swelling and ulceration of the throat and engorgement of the lymphatics, we should urge the employ-

ment of active means to complete the exfoliation of the epidermis. The third and last indication has reference to the condition of the kidneys, which often present serious complications in the later stages of scarlet fever. When the above mentioned indications are not fulfilled before the second or third week of the disease, scanty urine loaded with epithelial scales, exudative casts of the uriniferous tubes and albumen present themselves, we should watch carefully for dropsical effusions in the pericardium, peritoneal cavity or cellular tissues, which often prove rapidly and unexpectedly fatal. This excretion indeed should be regarded as important in all stages of this disease. When the conditions above noticed arise, active measures for their removal should at once be employed. Small and frequently repeated doses of calomel are especially serviceable in this stage. If continued until a slight degree of inflammation of the bowels is produced, followed by mucous and shreddy discharges, by the removal of the accumulated epithelium, it will prove an efficient method of restoring the mucous surface to its normal condition. During the use of this agent, tonics and stimulants are generally demanded to sustain the vital powers. At the same time our attention should be directed to the condition of the skin, and the warm or vapor bath and inunction with glycerin will materially aid in restoring its functions. An increase of sensible perspiration will generally be followed by an improvement in the urinary excretion. Diuretics will now prove of service in establishing the normal condition of the kidneys. The tincture of the chloride of iron is particularly valuable among these agents. I do not regard this class of agencies applicable until the stage of active congestion has passed off.

It will, I trust, be apparent, from the considerations presented, that the skin is the principal organ in the elimination of the scarlatinal poison and its products; and that our treatment of this disease should chiefly be directed to the early restoration of its suspended functions. If attention is drawn to the intimate bearing this membrane sustains to all the morbid processes which occur in scarlet fever, my object will be accomplished.

ARTICLE III.

THE WATER TREATMENT OF SCARLATINA,

ESPECIALLY BY THE WET SHEET PACK,

R. W. MATHEWSON, M. D., OF DURHAM.

Read before the Middlesex County Medical Society, April, 1864.

AMONG the remedial agents employed in the treatment of Scarlet Fever, there is, probably, none entitled to more confidence than the external application of cold water, which, although recommended by some of the highest authorities in medicine, is still very little used by the great mass of practitioners.

Allow me to make a few quotations, which, although they may not be new, to any one present, will bear frequent repetition.

Bateman, in his Synopsis of cutaneous diseases, published some fifty years ago, article "Scarlatina," says: "Many practitioners recommend the use of antimonials, and of saline and camphorated Diaphoretics, in order to excite perspiration, during the first four days of this fever; and some have advised the exhibition of opium in small doses, to alleviate the great inquietude and wakefulness that accompany it. But a little observation will prove, that such medicines fail altogether to produce diaphoresis or rest, under the hot and scarlet condition of the skin; and that, on the contrary, they aggravate the heat and dryness of the surface and increase the thirst, the restlessness, the quickness of pulse and every other distressing symptom. In truth, the temperature is considerably too high to admit of a diaphoresis, and the only 'safe' or effectual method of producing it consists in reducing the heat, by the application of external cold, upon the principles of Dr. Currie.

"We are possessed of no physical agent, as far as my experience has taught me, (not excepting the use of blood-letting in acute inflammation,) by which the functions of the animal economy are con-

trolled with so much safety, certainty, and promptitude, as by the application of cold water to the skin, under the augmented heat of scarlatina, and of some other fevers. This expedient combines in itself all the medicinal properties which are indicated in this state of disease, and which we should scarcely, *a priori*, expect it to possess; for it is not only the most effectual febrifuge, but it is in fact the only sudorific and anodyne, which will not disappoint the expectation of the practitioner under these circumstances. I have had the satisfaction, in numerous instances, of witnessing the immediate improvement of the symptoms, and the rapid change in the countenance of the patient, produced by washing the skin. Invariably, in the course of a few minutes, the pulse has been diminished in frequency, the thirst has abated, the tongue has become moist, a general free perspiration has broken forth, the skin has become soft and cool, the eyes have brightened, and these indications of relief have been speedily followed by a calm and refreshing sleep. In all these respects, the condition of the patient presented a complete contrast to that which preceded the cold washing, and his languor was exchanged for a considerable share of vigor. The morbid heat, it is true, when thus removed, is liable to return, and with it the distressing symptoms; but a repetition of the remedy is followed by the same beneficial effects as at first.

"Partly from the difficulty of managing the cold affusion, and partly from its formidable character in the estimation of mothers and nurses, imbued with the old prejudices, I have generally contented myself with recommending the washing of the skin with cold water, or water and vinegar, more or less frequently and extensively, according to the urgency of the heat. In the beginning of the disease, the affusion of a vessel of cold water over the naked body is, doubtless, the most efficacious, but, by a little management, all the benefits of a reduction of the morbid temperature that can be expected at a subsequent period, may be obtained by simple washing.

"After the extensive evidence, which a period of more than twenty years has furnished, in proof of the uniform efficacy and safety of the external use of cold water, in scarlatina, and in other febrile diseases, connected with high morbid heat of the skin, it is to be lamented that some practitioners still look upon the practice as an experiment and repeat the remnants of exploded hypotheses, about repelling morbid matter, stopping pores, &c., as reasons for resist-

ing the testimony of some of the greatest ornaments of the medical profession.

"For my part, I have been in the constant habit of resorting to the practice, at every opportunity, in scarlatina, attending to the simple rules laid down by Dr. Currie; and I have never witnessed any inconvenience, much less any injury, from it; but an uniformity in its beneficial operation, of which no other physical expedient, with which I am acquainted, affords an example.

"For the direction of those who may not be acquainted with the principles of this practice, if any such remain in the profession, it may be stated, in the words of Dr. Currie, that the cold washing is invariably safe and beneficial, 'when the heat of the body is steadily above the natural temperature—when there is no sense of chilliness present—and no general or profuse perspiration.' But I have found the following direction to nurses amply sufficient, viz: to apply it whenever the skin is hot and dry."

Dr. Stranger, in treating scarlatina among the children of the foundling hospital, found no other precaution necessary. Its effects in cooling the skin, diminishing the frequency of the pulse, abating thirst, and disposing to sleep, were very remarkable. Finding this application so highly beneficial, he adds, "I employed it at every period of the fever, provided the skin was hot and dry."

Gregory, in speaking of cold affusion in scarlatina, says: "an ulcerated state of the throat is no objection to its use; on the contrary, it often checks this symptom in the most remarkable manner; it cools the skin, abates thirst, diminishes the frequency of the pulse, the headache and languor, and disposes to sleep."

John Bell treated scarlatina in the Pennsylvania Hospital, for many years, by cold bathing, with the most satisfactory results; he says: "How often have I seen the little sufferer, with burning heat and delirium, and unable to sleep or repose in any way, tranquilized immediately by the cold affusion, and fall into a sweet and refreshing sleep immediately afterwards with a reduction both of the heat of the body and the frequency of the pulse. If timidity or false doctrine interfere to prevent affusion, you must content yourself with sponging the surface with cold water, particularly the face, neck, chest and abdomen."

This practice was recommended by Armstrong, Copeland, and others, yet its fancied danger, and the natural prejudices

of mothers and nurses against water and air, and in many cases the ignorance of physicians in regard to its safety and beneficial effects, having been in the way of its adoption, it seems to have sunk, almost, into an undeserved oblivion, when the powerful name of Trousseau came to its rescue.

The Clinical lectures of this great man at the Hotel Dieu, which were published in English some fifteen years ago, have furnished capital for monographs, prize-essays, and clinical lectures, in this country and England, and have given a new impulse to the practice of Currie. Trousseau says:—

"We have seen, that, in scarlatina, and particularly when at its height, patients seem to succumb to a nervous exaltation, at least to nervous disturbances arising either in the centers of organic life, characterized by an extraordinary elevation of the temperature, vomiting, obstinate diarrhea, or in the centers of animal life, manifested by delirium, coma, vigil, subsaltus tendinum and convulsions. For these nervous symptoms there is a treatment, the value of which has been proved by experience,—a treatment which the physicians adopt, however, with great caution. I speak of the *cold affusions* extolled by Currie. Currie was the first to recommend their use. He treated a large number of patients afflicted with the severe form of scarlatina, and had considerable success from the use of cold affusions. Emboldened by his fortunate results, he insisted upon this mode of treatment, and established its application as a general rule in Scotland, in scarlatina accompanied with severe nervous symptoms, such as delirium, convulsions, diarrhea, excessive vomiting, and a high temperature of the skin. How should this treatment be applied? The patient placed naked in an empty bath-tub, three or four pails of water, at a temperature of 68° Fahrenheit, are thrown over his body. This affusion lasts from a quarter of a minute to a minute, at the longest. The patient is immediately enveloped in blankets, placed in bed without being wiped off, and properly covered; reaction generally follows in 15 to 20 minutes. The affusions are repeated once or twice in the twenty-four hours, according to the severity of the symptoms. To suggest in private practice a treatment apparently so bold, one would require to have grown old in practice, to be beyond the necessity of being sustained by public opinion. He should be fortified by a deep sense of duty,—by a consciousness of doing well, in order to

oppose the popular prejudice,—of all prejudice perhaps the most unfortunate,—which demands that in eruptive fevers, patients should have warm drinks and be wrapped in more coverings than they are accustomed to in health. There is no prejudice, we say, which is more unfortunate than this; there is none which more frequently occasions the death of the patient. Yet the voice of Sydenham has spoken for two hundred years,—the authority of the most distinguished physicians; those who still object to it resist in vain.

I have employed these affusions for a long time. I tried them in private practice before adopting them in hospital practice, for I have never made use of anything there which I had not previously tried in my private practice. As to these cold affusions, I can assure you that I have never used them without gaining some beneficial effect from them. I do not pretend to say that all my patients were cured. Far from it. I have lost a great many, but they died notwithstanding the treatment. The affusions, instead of being injurious, seemed to moderate the symptoms and retard the fatal termination. By acting in this way in private practice, my reputation ran great risks, and I have often been badly recompensed for doing what my profound conviction dictated; but I remained firm in my course, which duty marked out for me, and I persist in it up to this hour, for a stronger reason than formerly; for now, my position being established, my responsibility does not influence me as much. I understand your fears—not that you doubt the advantages of the treatment which you dare not adopt, but because, while consulting first of all the interest of the sick intrusted to your care, you endeavor to watch over your own reputation, which is so easily affected at the commencement of your career as practitioners. Still, when the voice of duty speaks to you, when your conscience tells you that this treatment which you dare not adopt because it is contrary to the prejudices of the world, is a useful treatment, it is right and proper that you should try it. But then, instead of resisting this prejudice face to face, instead of taking the bull by the horns—if you will pardon the expression—avoid the difficulty, by administering these useful cold affusions, leaving the patient, and especially the attendants, in the belief that the affusions are warm.

Scarlatina, as I have already said, in its malignant form, has, of all diseases, the highest elevation of the temperature of the body. In

some cases, I have also told you, it is as high as 106° Farenheit. Now, do not make use of the affusions, but of simple lotions, and with water at 77° Farenheit, that is 29° less than the skin of the patient; relatively, it is cold. Put the patient upon a cot bedstead, and sponge the body with this water, first in front and then behind, and then replace him in his bed, (without wiping off,) wrapped in blankets, as I have already indicated. Although less efficacious than cold affusions, this kind of affusion has a positive effect, and following its application, you will perceive that the skin, which was before very dry and extremely hot, will become, in half an hour, cooler and moist. What is still more remarkable is, the diminution in the frequency of the pulse. Instead of beating, in the infant 160—170—180, in the adult 140—150; it falls to 130—135—140 in the former, 120—125 in the latter; consequently, 30, 35 and 40 pulsations less. At the same time the cerebro spinal phenomena diminish in intensity; the vomiting and excessive diarrhea, symptoms depending on disturbances of ganglionic innervation, also diminish. Thanks to these lotions, then, you obtain, for a short time I grant, a remarkable sedative effect. I say, for a short time, for in two or three hours the symptoms sometimes return, when the lotions, or affusions, should also be repeated, two, three, or four times, in the twenty-four hours, and sometimes, five or six days in succession.

“What becomes of the eruption? You will observe this fact, which will surprise the assistants and reconcile the family to the lotions, the affusions which they mistrusted; that, almost invariably, from the beginning of the affusions, the skin, which was pale, or of a faint red color, becomes quite red, and the eruption becomes more developed; these affusions, therefore, not only do not decrease the eruption, but bring it out, so that the parents themselves notice it, and as long as danger continues, they are often the first to solicit its employment, unable to refuse to recognize the amelioration which this mode of treatment has produced, particularly struck with the fact, that the eruption reappeared more distinct; yet in verity, if the result of this amelioration is not favorable, if death takes place, they forget the encouragement they gave you, they accuse you of misfortune, which can only be attributed to the character of the disease.”

Pereira, in his *Materia Medica*, says:—

“The cold water cure, or hydropathy, though not yet admitted

by the medical profession among the legitimate means which may be beneficially employed in the treatment of disease, undoubtedly includes powerful therapeutic agents, which, in the hands of the educated and honorable practitioner, might be most beneficially resorted to, as remedial agents."

C. J. B. Williams, in his *Principles of Medicine*, says that,—

"The reaction which follows the judicious use of cold, as a therapeutic agent, may prove serviceable, not only as resisting the further influence of cold, but also to remove congestions and irregularities in the circulation from other causes, and to excite in the capillaries and secernents, new action, which may supersede those of disease. It is thus that the water cure of Priessnitz chiefly operates; and although too powerful an agent to be intrusted to unskilled and unscientific hands, it promises to become a valuable addition to the means of combating disease."

Dr. Carpenter, in his *Human Physiology*, also testifies that,—

"The wet sheet, as used by hydropathists, is one of the most powerful of all diaphoretics, . . . will be probably employed more extensively as a therapeutic agent, in proportion as the importance of acting on the skin, as an extensive collection of glandulæ, comes to be better understood— . . . no person who has watched its operation can deny that it is a remedy of a most powerful kind; . . . there is strong reason to believe that it will be found to be the most powerful means we possess for various specific diseases, which depend upon the presence of a definite *materis morbi* in the blood."

E. Smith, in his clinical lectures at the Brompton Consumption Hospital, (Eng.) on the treatment of consumption in its early and remedial stages, now publishing in the *Medical News and Library*, (see June No., 1864,) in recommending the use of cold water to the surface, says :—

"It would appear, at first sight, that the application of cold to a skin in which perspiration is proceeding, and which possesses great sensitiveness to cold, would be injurious; but we have been taught of late years that, within certain limits, these changes may be effected with rapidity and impunity. The object to be had in view, however, is not to lower the temperature of the skin, although that may be a necessary condition to the attainment of our object, but to remove the atonic or relaxed state of the skin, with which an unusual tendency to perspiration is always associated, and to restore

the skin to its normal tone. For this purpose cold is very efficacious, from its known property of contracting vital tissues, and the chief care must be to apply it in such a manner that tone may be given without materially lowering the temperature of the skin. In exercising this care, it is better to use water of the temperature of the room, viz., from 50° to 60°, according to the season of the year, and either to plunge the whole body at once into it, or to apply a small quantity of it as quickly as possible to the whole surface. If the plunge bath be used, it should be expeditiously effected, and friction be applied directly afterwards. This may be performed either in open water or at baths. When sponging is preferred, it should be effected night and morning, and care be taken that the sponge or towel does not retain so much water that when pressed upon the body, the water shall trickle in streams over the skin. We prefer a towel for this purpose, and after it has been dipped into the water and pressed, so as to leave but little water in it, it should be quickly applied and reapplied to all parts of the body. The whole operation need not occupy more than one minute and a half, and as the towel becomes less cold after it has first touched the body, the shock is not considerable. In order to produce the effect which we desire, it must be dipped several times into the water. It is customary with many persons to bathe the chest, or some small part of the body which is ordinarily covered with clothing, and to leave the greater part of the body unbathed. We think this both a useless and a dangerous practice, in the conditions now under consideration, for the object can be obtained only when the whole skin is influenced, and there is much greater liability to take cold when the temperature of one part of the skin is lowered, and that of the other parts remains high.

"There is still some unfounded prejudice against the free use of cold water, on the ground of a supposed liability to take cold under its use. We grant that if only a part of the skin be so acted upon, and the naked body be exposed to a cool temperature for some time, this is very liable to occur; but when the whole body is acted upon at the same time—as by the shower or plunge bath, or by the wet sheet—there is the least danger, and in proportion as the temperature of the skin has been rapidly lowered, so will the glow of heat be felt when the skin has been dried and covered.

"On the same ground there are many who use lukewarm water,

and others, who, by the routine of the hydropathic treatment, precede the use of cold by the employment of the hot bath, but in the condition in question both plans are injurious. The use of the warm water would not afford the contractile action which we desire, and by the evaporation which would be set up, would be likely to give cold to a sensitive skin, whilst the hot bath cannot be useful in any case in which the skin is ordinarily too active, and where the sole design is to lessen the activity."

I have made these large quotations from high authorities, because, while they express my own views in regard to the safety, and value, of the external application of cold water in the treatment of scarlatina, they serve to do away with the erroneous prejudices against its use, on the ground that it closes pores, repels morbid matter, &c., which is precisely the reverse of the fact. Since the publication of Trousseau's lectures in this country, I have been in the habit of using the cold lotions in cases of scarlatina attended with increased heat of the skin, and frequency of the pulse, with benefits in proportion to the thoroughness of their application.

In the Spring of 1863, while I was attending three children with scarlet fever in a family where the father had strong Hydropathic proclivities, we were making thorough use of cold lotions, cold douches, cold compresses to the throat and to the chest of one having croup, as a complication, a fourth child was attacked violently, during my absence at a distance, pulse 180, and febrile symptoms to correspond; the father, who had been for many years in the habit of using the "wet sheet pack" in febrile attacks in his family, took the responsibility to try the remedy in this case; the effect of the first pack was to reduce the frequency of the pulse to 130, and to relieve the other symptoms, so that very little subsequent treatment seemed necessary. I denounced the practice, and warned the father of the sequences which would be likely to follow such treatment; in this I was, however, disappointed. On witnessing the effects of the "wet sheet" in this case, and finding it spoken well of by Dr. Hillier, in his clinical lectures at the Hospital, for sick children in England, and also by Dr. Carrington, in his prize essay, published by the State of New York, I concluded to try the remedy, and have since witnessed its effects in twelve cases, with the most satisfactory results; it seems to possess the advantage over the lotions, of a more sure and manageable reaction, and of its depura-

ting effects on the surface. It acts as a universal fomentation, warmed by the heat of the patient. By its repelling effects on the surface, and consequent reaction, it relieves the congested capillaries, which constitutes the eruption, it opens the constricted and constipated pores of the skin, and, by keeping the cuticle in a moist state, favors absorption and exhalation, aiding the eliminating efforts of the disease to discharge the morbid matter, through nature's chosen surface for its expulsion from the system, thereby removing the cause of morbid excitement and local complications.*

These effects of the pack have seemed to modify the disease, so that in families where some were packed, and some were not, I have been reminded of the effects of variola, where a part of a family had been vaccinated. The earlier the pack is used in a case, so as rather to anticipate the eliminative effects of the disease, the more marked the effect; it may be used as soon as the heat and dryness of the skin and frequency and fullness of the pulse is above natural, and with a freedom in proportion to the urgency of these symptoms.

I have usually applied the wet sheet, during the evening exacerbation, while the excitement was near its height; its effects have been to reduce the frequency of the pulse from 20 to 40 beats in a minute, to calm excitement and produce quiet sleep in from 10 to 15 minutes; some children, frightened by the first application, have

*"Taken separately, the little perspiratory tube, with its appended gland, is calculated to awaken in the mind very little idea of the importance of the system to which it belongs; but when the vast number of similar organs comprising this system are considered, we are led to form some notion, however imperfect, of their probable influence on the health and comfort of the individual. I use the word, imperfect notion, advisedly, for the reality surpasses imagination, and almost belief. I counted the perspiratory pores on the palm of the hand, and found 3,528 in a square inch. Now, each of these pores, being the aperture of a little tube of about a quarter of an inch long, it follows that in a square inch there exists a length of tube equal to 882 inches, or 73½ feet, making 73 inches of drainage to each square inch of skin. To obtain an estimate of the length of tube of the perspiratory surface of the body, I think that 2,800 might be taken as a fair average of the number of pores in a square inch, and 700, consequently, of the number of inches in length. Now, the number of square inches of surface, in a man of ordinary height and bulk, is 2,500; the number of pores, therefore, 7,000,000; and the number of inches of perspiratory tube, 1,750,000; that is, 145,833 feet, or 48,600 yards, or nearly 28 miles. The sebiporous system is included in this perspiratory apparatus of the greater part of the body."

—Healthy skin, by Erasmus Wilson, page 62.

kept awake half an hour. By the use of the wet sheet, we seem to have the frequency of the pulse, the arterial and nervous excitement, under control as with a damper. The luxury of the pack is a great consideration. I have known children cry for its repetition on a return of the fever. The effect of the pack on the nerves and vessels of the skin, while it changes it from the harshness of parchment to the softness of velvet, produces a sense of comfort hardly describable; in fact the patient in this changed condition hardly knows himself.

In neither of the cases treated by me with the wet sheet, was there the slightest sequelae following, although in an epidemic where complications were frequent. In some cases the inflammation of the throat and glands disappeared immediately after using the pack without local treatment.

In one case, a child of Mr. C. of Middlefield, the patient, who had formerly had enlargements about the throat, on being treated by the wet sheet, recovered without any affection of the glands. A sister of the above was next attacked, who had had no such previous trouble. A Homœopathist from Middletown, attended this case and told the family on the start, that they would see there would be no complication in this case, as all those were the effect of the regular treatment; yet notwithstanding the advantage he had in the patient, I was called in, a fortnight after, to treat the glandular enlargements. Another case that occurred in M. during my experience with the wet sheet in that place, it may be well to mention.

I was called to visit Mrs. M., with scarlatina. Being detained several hours by a case I could not leave, I found on my arrival that the patient had had scarlatina for several days, and had been packed during the day by her friends, and died several hours afterwards, a few minutes before my arrival. This patient was a follower of the Danville school of fanatics; she ate no salt, butter or animal substance whatever, and although doing the work of a man in a factory, in addition to her housework, she ate no supper.

From what I could learn, I inferred that the pack, if it had any injurious effect, was from a deficiency of reactive power in the system, induced by her previous habits and the state of the disease. The husband was confined at the time, with a low form of erysipelas, from which he, however, recovered. It is important to be sure of reactive power in the system before using the wet sheet.

DIRECTIONS FOR PACKING.

Place upon a cot or mattress, one or two comfortables and blankets enough to make four in all,—the number of each can be varied according to the supply—then a linen or cotton sheet wrung out so as not to drip, in water 70° Fahrenheit. The thinner and dryer the sheet, the less the effects; the higher the temperature of the surface, and the quicker and fuller the pulse, the thicker and wetter the sheet may be. The sheet should extend below the feet about half a yard, and if too long it must be doubled down at the other end: a sheet to fit the patient is better.

The patient totally undressed, is laid upon the sheet in all his length, with his arms close by his sides, and quickly enveloped in the sheet; first the side towards the packer is carried over and tucked under the opposite side evenly and closely about the neck; next it is brought over the feet, and then the other half is brought over and tucked under in the same way; then each part of the first blanket is carried over in the same manner; then a bottle of warm water is placed at the feet to insure reaction; then the other



[PUTTING THE PATIENT INTO THE PACK.]

coverings are each applied in the same way, taking care to apply them to the neck, so that no heat can escape or air enter any part of

the pack ; now a cloth, dripping with cold water, is applied to the forehead, extending back to the pillow ; in this state the patient is



[IN THE PACK ; ENVELOPED IN BLANKETS.]

to remain until he becomes restless from perspiration, which will be in about an hour. There is a slight restlessness when the perspiration is starting through the skin ; he should not be removed at this time.

The Germans use one woolen blanket and a light feather bed imported for the purpose. This is quickly thrown over the patient, and tucked under the sides and the feet, drawing it tightly across the neck and under the shoulders.

When taken from the pack, the patient is to be quickly wet with water at a temperature of 70° , by immersion or by quickly throwing the water over the patient while standing in a tub, or what is better, a dripping sheet wet in the water and thrown over the patient while standing in the tub. (see cut on next page.) The patient is to be rubbed briskly through the sheet, then with the bare hand and lastly through a dry sheet thrown over him in the same way. He is then to be placed in bed, and a bottle of warm water should be placed at his feet, to assist reaction.

The pack is to be repeated whenever the fever returns, usually t

next evening, and continued as long as the fever continues, according to the above precautions.



[USING THE DRIPPING SHEET.]

This method of using the wet sheet, is the same as is used in other febrile diseases, pulmonary inflammations, and cases requiring increased action of the surface.

The dripping sheet with the subsequent treatment as above described without the pack, has the effect of a plunge or sponge bath, in cases where a quick impression is desired to excite action and equalize excitement. The entire surface being protected by the sheet during the frictions, the unpleasant chill from the evaporation as in the other methods is avoided.

For the albuminuria following scarlatina and in Bright's disease, I have never found any treatment equal to fomentation of the back. In two cases of Bright's disease, the urine was increased four-fold, and kept at that point until the dropsical accumulations were entirely removed. We know that albuminuria is caused by suppressed perspiration, and whatever excites action of the skin is the best treatment. I intend to try the wet sheet pack in the next case attended with sufficient action. In cases when the pack is not used, I find the cold compresses or partial packs to the throat and chest the best

treatment for the affections of the throat and croupy complications, in scarlatina and diphtheria; in one case the child brought up the membrane and recovered. Pieces of ice held in the mouth for a minute and swallowed, are the best gargle I have ever used. In this way the patient will frequently use a pound of ice in a short time,

While using the wet sheet pack, I have given the Tincture of Chloride of Iron, as in other cases, and a gargle of Chlorate of Potash.

I always insist upon the most thorough ventilation of the apartments, keeping windows open more or less according to circumstances, night and day, protecting the patient from drafts of air directly on them. To remove the exhalations from the apartments, is very important for the good of patient and attendants.*

*Dr. Charles Munde, proprietor of a Water Cure at Northhampton, Mass., who I learn was a pupil of Priessnitz, has written an excellent book of one hundred pages, on the "Hidriatic Treatment of Scarlet Fever," in which he recommends the remedy in various forms of scarlatina, in which I have not tried it. I regret much I had not known of this book before my experience with the wet sheet.

ARTICLE IV.

ENLARGEMENT OF THE PROSTATE GLAND.

Read before the Hartford Co. Meeting, April, 1864.

BY GURDON W. RUSSELL, M. D., OF HARTFORD.

I propose to make a few remarks upon some of the *Affections of the Prostate Gland*. This subject is not a novel one, but its importance will merit a consideration at our hands.

The prostate is a gland situated at the neck of the bladder, having the pubic symphysis above and in front, and the rectum behind. Its distance from the pubis is short, and it is connected with the surrounding parts by loose cellular tissue. It is affected by various diseases, as simple inflammation, induced by injuries or not, followed sometimes, though rarely, by suppuration; by hypertrophy, by malignant disease, by calculi in its substance or urethral portion, &c., &c.

But it chiefly demands our attention, as a gland affected by the advance of age, giving rise to what may be called, essentially, an old man's disease.

The symptoms indicating inflammation are, great pain at the neck of the bladder and in the rectum, with tenesmus; accompanied with a sensation of heat, throbbing, violent spasm, preventing micturition, and severe scalding heat, if a few drops of urine are passed. The attack is not unfrequently ushered in by a chill, and may be caused by undue exposure, bruising of the parts, irritation, existing primarily in the rectum, gonorrheal inflammation, the presence of stone in the bladder, intense venereal excitement, &c.

The remedies are cooling acidulous drinks, saline laxatives, opium, if the constitution is reduced, the horizontal position, leeches to the perineum, warm fomentations, and the injection of cold water into the rectum.

These remedies will usually avail; but if they do not, suppuration may occur, and the time of cure be much prolonged.

These cases, though sometimes severe, are not usually dangerous; and perhaps there is no danger, unless they occur in an old and broken down subject. Even here, leeching is especially beneficial, and so is the use of opium. Where there are objections to this, the hyoscyamus is of advantage, and bark, in some form, is advisable.

In the inflammation of this gland from gonorrhea, no one would think of using the stimulating balsams, at the outset; but a solution of sulphate of magnesia, with the tartrate of antimony and potassa, which is serviceable in inflamed testicle from the same cause. But, after the acute stage has passed, and there remains a gleety discharge, which is partly, and perhaps mainly, from the prostatic portion of the urethra, the balsams will be especially serviceable, and so will some of the astringent solutions of iron, and also small doses of strychnia.

Calculi are sometimes found in the prostate; I have never seen any. They may be detected by an ordinary sound, or catheter, if not perfectly imbedded in the organ, and may sometimes be detached by the same, if they can be felt. But calculi, renal, cystic and prostatic, are very rare in this section of country. This gland is the seat also of malignant disease, and the consequences which ensue are those which follow hypertrophy, only that the symptoms are more severe, and sooner followed by a fatal termination; and in addition there is oftener, perhaps, a hemorrhage which is more frequent and more profuse.

Simple hypertrophy of the organ is, by far, the most common disease of the prostate. It usually does not manifest itself much before the age of fifty years, and is so insidious in its inception and gradual in its progress, that the patient is not usually aware of its existence, until he is unable to urinate. He may have been obliged to pass his urine frequently during the day, and even during the night, for years in succession, without being aware of anything very unusual. The first symptoms are, frequent desire to urinate, with feeble propulsion of the urine from the bladder, with a sensation remaining, as if it was not fully evacuated; the pain is not usually great, and I think that which is described as pain by the patient, is a sense of uneasiness in the pelvis, as if the bladder was not fully emptied, which very likely is the case, a portion of the urine remaining behind the enlarged gland.

Sometimes, after excesses of various kinds, the trouble first shows itself prominently, also after great fatigue, obstinate constipation and great exposure to cold and damp air; I think it is particularly induced by retaining the contents of the bladder an undue length of time, especially when traveling, because there is no convenient opportunity of voiding it. Very much to his surprise, the patient fails in his efforts; the distension, which has been gradual, has not become very painful, and relief is not obtained until the great distension of the bladder, with agonizing pain, demands immediate aid.

The enlargement may have existed for several years, producing no other trouble than inconvenience, when the gland, becoming suddenly congested, or irritated, enlargement takes place, and urination is stopped, from the very mechanical obstruction; as the contents of the bladder increase, and the urine itself becomes more acrid and irritating, the size of the gland is also increased, so that time adds to, rather than diminishes, the original difficulty.

In endeavoring to ascertain the existence of this enlargement, we may take into account the patient's age, his previous condition of health and exposure, the frequency with which he has been obliged to urinate, and the character of the urine. The ordinary symptoms of enlarged prostate may arise altogether from urine which is highly acid, or highly alkaline, inducing frequent desire for micturition from its irritation. This condition may exist for a long time, and even produce retention, requiring the use of the catheter, without any positive amount of enlargement. And so may some organic diseases of the kidney, either because the urine itself is changed in its normal constituents, or from a spasm of the neck of the bladder; or we may suspect it from the great pain which is referred to this region, or the end of the penis, but which is only sympathetic.

Our greatest reliance, however, must be placed upon an actual examination of the gland through the rectum. This is the most reliable, and the most to be depended upon, in forming our opinion. It is not of much consequence which particular lobe of the prostate is enlarged; the enlargement, if positive, will easily be detected; the evidences, if present, are unmistakable. It may be comparatively slight, and yet be the cause of a serious obstruction; it may be very large, and yet give no decided inconvenience; that is, not produce complete retention. And yet, if the gland is very large, it is doubtful if the bladder is always fully evacuated. No serious

danger may exist for the present, but the continued presence of retained urine, itself, becomes one of the causes of grave consequences, its highly ammoniacal odor showing the decomposition that has taken place. I have found the gland exceedingly enlarged, with symptoms indicating disease of the kidney, but attended with no retention, and only with the usual discomfort, which arises from frequent micturition. But here there is actual danger; the patient is on a mine ready to explode. Let him be subjected to excessive fatigue, or great mental anxiety, to exposure to cold, to retention for an unusual length of time, to excessive venereal enjoyment, or riding upon horseback, or a hard seat over a rough road, or to any agencies which will produce a congestion of the organ, and he is at once the victim of extreme suffering. He is in suffering until he is relieved by the catheter, and in danger of its recurrence forever afterwards. Retention of urine is the result most to be dreaded from hypertrophy, or any disease of the prostate which causes enlargement. The retention, whenever it occurs, demands instant interference. All temporizing is more than a waste of time; it entails a positive injury. The means of relief are at hand, and should be afforded at once. Hence we should resort to the use of the catheter without delay. In this instrument, properly used, we have the means of immediate relief, and no one who has witnessed the change, from the most distressing agony to the highest joy, will regret its use.

There has been quite a difference of opinion as to the kind of catheter to be used; some prefer those made from elastic material, and others prefer silver. Both may have their advantages at times, but it is thought, upon the whole, that silver catheters, of large size, longer than usual, with a proper curve, are superior. I think these are to be preferred, are more reliable, less likely, upon the whole, to make a false passage, and more likely to follow the natural direction of the urethra, if violence is not used. By proper manipulation, they will also enter the bladder more readily. It is a great art to pass the catheter when the gland is much enlarged, for the difficulties are great in themselves; and confidence in ones self is necessary, to feel that it can be done, and courage is necessary, in order that we may not be overcome by disappointment, in case success does not immediately follow. A most pitiable sight it is, when the operator allows his fears to follow upon his failures, and, drenched with

perspiration, works his formidable instrument with desperation; if he does not succeed, he is very apt to penetrate the sides of the canal.

In pressing the instrument gently but firmly, it easily follows the natural canal, and as this is not always direct, it turns sometimes to one side, but nevertheless passes on easily. When it arrives at the gland, and entering it, deviates laterally, it is supposed to be owing to an increased development of one lobe over the other, which is a reasonable explanation. Usually there is no difficulty until the instrument arrives at the prostate, when the obstruction is sudden. The middle lobe, as it is termed, which after all is not much of a lobe, is partly the cause of it, and to pass the catheter over and beyond this, is the great point. The secret of success consists in depressing the handle of the instrument, far beyond what is ordinarily required. The best position is to place the patient standing, and while using considerable pressure inwards, at the same time to carry the handle down, even between the thighs, and farther if necessary. Then the beak of the instrument will point forwards, and mounting over the obstruction, will easily enter the bladder.

If any stricture of the urethra should exist, of course this is to be overcome; but stricture is more a disease of youth, or middle age.

If any injury is done to the urethra, there will be hemorrhage; but because there is hemorrhage, there is not, of necessity, injury of the urethra. The hemorrhage comes, not unfrequently, from the prostate, and is pretty sure to occur if there is much enlargement, or great congestion of the organ. In truth, the hemorrhage is often of decided benefit, by relieving the engorgement; frequently, it is quite profuse for a few moments; but, if we feel sure that the catheter has passed into the bladder by the natural way, we need have no anxiety.

The hemorrhage is of unquestioned advantage when it occurs in very old men, with a disposition to coma.

Allusion has been made to the length of the catheter which is to be used. The ordinary ones are sometimes not of sufficient length, and we may fail because, not introducing the instrument up to the eyes, we stop short of this, when we think we have gone far enough, but when, in truth, we have not reached the bladder. With a catheter two or three inches longer than usual, this will not be likely to happen.

There is another little deception which is likely to occur, and which sometimes does occur. In old cases, a sort of pouch is formed, just in front of the prostate, which will hold from half an ounce to two ounces. When the instrument arrives at this point, there is a sudden gush of urine, and we may think that the bladder has been reached, and the quantity of fluid being so small, that we have been deceived. I ought to know that this may happen, for it has occurred to myself. The case was an old one, and the instrument was short. Fortunately, I remained with the patient for an hour, and finding no abatement of the distress, concluded that I had made the mistake mentioned above; being satisfied that the bladder required to be emptied, I pushed the instrument in further, and depressed the proximal end more, and the result was satisfactory.

As to remedies, I have but a few words to say. In addition to those which have been mentioned, hygienic measures are most to be commended. The disease is a fixed one; an established fact from which there is no escape; therefore, avoid the causes which are likely to bring on the paroxysm, if we may so term it. If the urine is very ropy, the Buchu and other similar remedies may be serviceable. The Muriated Tincture of Iron is of unquestioned benefit, when there is anything like spasmodic action, or the system is debilitated. Nux Vomica is also of service when the nervous power is failing. Sometimes the Ergot, in the form of a strong tincture, seems to act specifically upon the bladder, and by increasing the contractions, overcomes the obstruction. The diuretics are said to be injurious, and theoretically they are, and very likely practically also. If they are ever of benefit, they probably act by rendering the urine less irritating by dilution. The aim is not to increase the quantity, but to get rid of the supply.

Endeavors have been made to produce diminution of the gland, by inunctions over it, either in the perineum, or in the rectum, with iodine: this is ridiculous.

In some cases we may succeed in entering the bladder, when there is difficulty, by keeping close to the pubes, pulling upon the instrument, as it were, at the same time that we are introducing it. In a case which troubled me considerably, because I did not always succeed, I was for some time puzzled as to the cause, but concluded that the enlarged gland was near the pubes, and that if I stuck to this, the difficulty would be overcome. This was done, and there was no obstruction afterwards.

It is necessary in many cases that the catheter should be used for some time afterwards; if the retention has been long, this is particularly necessary, in order that the bladder may recover its tone; it has been almost paralyzed.

Reference ought to be made to a very curious retention of urine occurring in old men, usually from enlarged prostate. Partly from enlargement of the gland, and partly perhaps from failing nervous power, the bladder has not been fully evacuated for months. Little by little, and unconsciously to the patient, it has become distended. His urine dribbles away, or he passes a small quantity at a time, and because he does so, does not even suspect retention. The swelling of his abdomen he thinks nothing of, or if it attracts his notice is attributed to a wrong cause; and so he goes on, day after day, the bladder gradually yielding, because more is received into it than passes out, and not seriously disturbing him, because it yields so gradually; until either from complete stoppage, great debility, or coma, induced by the absorption of urea, the physician is called, and the difficulty is detected. But here it is not always easy to convince the patient. He says that he has urinated frequently, and thinks that sufficient. These cases are apt to be fatal, either from positive disease of the nervous centers, or because the bladder has received irreparable injury from inflammation and ulceration.

Of the consequences of retention, and some other points connected with this whole subject, I will say nothing; they are very interesting and important, and would alone form a theme for discussion.

ARTICLE V.

SULPHURIC ETHER IN SURGICAL OPERATIONS.

BY JOHN E. BLAKE, M. D.

Read before the Middlesex County Meeting, April, 1864.

I propose to offer for your consideration some opinions, which I hope may prove worthy of attention, as to the best manner of inducing anæsthesia with Sulphuric Ether in surgical operations.

I speak of ether, and not of other anæsthetics, because I shall assume that the profession in this country (at least the leaders of it) are using more and more this agent, in preference to others, in surgical operations.

Should I be wrong in stating something like the following to be the opinion of many (if not of the majority) of American surgeons at the present time, upon the much vexed question of ether versus chloroform? that while we admit the mortality attendant upon the use of chloroform, even in the most careful and experienced hands, still, *if we had no other more safe agent* by which we could produce like effects, no one rightly appreciating the value of anæsthesia, both to patient and operator, would forbid its use on account of such mortality. For this mortality is relatively very small, taking into account the thousands upon thousands who have inhaled chloroform with impunity. The rapidity of its operation, and above all the small space required for a quantity sufficient for many operations, render it a *sine qua non* in active military practice. If it be a question with the army Surgeon of chloroform or *nothing*, no consideration of possible danger from its use, would be worth taking into account.

In obstetric practice, it is claimed by many whose opinions are entitled to respect, that the peculiar state of the system in the parturient female, gives her an immunity from danger in inhaling chloroform. It is undoubtedly much better adapted for use in the lying-in-room than ether, and is there used by very many practitioners,

who use only ether in their surgical practice. If, however, as the rule, we give the preference to ether, as being safer than chloroform, can the uncertainty of its effect and the tardiness of its action be obviated, in whole or in part, by increased attention to the *mode* of administering it, and to the condition of the patient? I think it can.

Some divide the process of etherization into three stages. First; slight exhilaration, with some confusion of the senses of sight and hearing. Second; a stage more advanced. The senses of sight and hearing not being wholly lost, but very much confused. There is a great loss of sensibility, pain is scarcely felt, though this insensibility to pain, and want of consciousness, are not nearly as great as in—the Third and last stage, in which there is complete unconsciousness, a tendency to coma, with entire muscular relaxation, and total want of sensibility to external impressions.

Whether or not this division of the process into three stages be perfectly accurate, we do not propose now to discuss. We shall adopt it, as enabling us to treat the matter in hand more conveniently.

The second stage being reached, there is usually very little trouble in inducing the third stage, or afterward maintaining it. Moreover, there is no very great difference in the action of the ether upon different individuals, after the second stage is well established; whereas, before this, there is often much variation in its action; a circumstance which has brought it into discredit with some, and induced a trial of more potent, but dangerous substitutes. The majority of small operations can generally be performed upon a patient etherized to the second stage, and as the third can be easily and uniformly induced from it, it follows, that in attention to the first steps, we have the key to success in the whole process. Now, observation shows, I think, that the more rapidly the first stages of etherization are induced, the more perfect and satisfactory will be the result, in every respect. Such is the volatile nature of sulphuric ether, that I consider one great difficulty is, to get enough into the lungs at a time, to produce the rapid effect we desire, *even when the patient is quiet*. But they are often the very reverse of quiet, and this from causes which operate directly upon their minds. Of these mental sources of embarrassment I will now speak, and then take up those which are due to the nature of the agent used.

The patient sits down in a state of nervous terror, and with a thorough antecedent prejudice against ether and etherization, which has often no better foundation than deductions from the silly, ignorant gossip of neighbors and *friends*! Expressions like, "I wouldn't take ether if I were you," or, "there's Mrs. —, she took it in the fall, and had chilblains all winter," are received as arguments, and the wildest confoundings of *post hoc* with *proctor hoc*, are readily admitted in evidence. What wonder, then, that the poor patient, trembling in anticipation of a surgical operation, and still more agitated by fear of the anæsthetic, should, at the first sniff of the strange suffocating vapor, tear away the sponge or cloth, until, admitting more and more air with the ether vapor, an almost maniacal condition follows, and the Surgeon is forced to push the process to the third stage, to give himself any chance to operate. Another point.—It has been maintained by many who have had great experience in the use of ether, and the idea is partly confirmed by the testimony of those who administer the nitrous oxide, or laughing gas, that the last impression upon the mind, be it one of mirth, shame, pride or anger, is very apt, in the subsequent semi-unconscious state, to be dominant, and govern action. If this be so, how important to the success of the process, that two ideas should, at the start, be well impressed upon the patient's mind. One, that there is an absolute necessity of complete passiveness on their part, and secondly, that you do not mean them any harm, and that whatsoever strange notions of violence intended them may cross their brain during etherization, they are all delusions. The action of ether upon the air passages, causing an involuntary cough, is often a source of embarrassment. A constant short, ineffectual cough, becomes, sometimes, so hard to bear, that the patient is almost unable to continue inhalation. By a slight effort, however, this may be continued in spite of it; and it has often seemed to me, that where patients were willing, for a short time, to cough, and inhale upon the succeeding deep inspiration, the effect desired was sooner obtained, than where there was no disposition to cough. Vomiting may trouble us, even in the incipient stage of etherization, as well as in the more advanced stage, though more usually present in the latter. The simple precaution of not eating freely before inhalation, will generally prevent this in a great measure.

So far, the causes of embarrassment enumerated are more or less

under the control of the patient. Let us now consider some which are due to certain properties of the anæsthetic agent itself.

Ether evaporates very rapidly, even at an ordinary temperature, and dissipates itself in an increasing ratio, with an increase of heat; boiling, when pure, at 95°. It passes into the remote vesicles of the lungs, then, by the mere exhaustive force of the diaphragm, and other respiratory muscles, against its own constant tendency to fly upward. The strength of this tendency is well illustrated by the hoar frost so commonly seen upon the top of the sponge, the sudden passage of the ether, from a liquid to a gaseous state, actually freezing there the moisture of the patient's breath. Even in a moderately cool room, with a well-saturated sponge, and with a quiet patient, it is none too easy to obtain a rapid effect; but if, on the contrary, the ether be poured with a timid or parsimonious hand, with no precautions taken to prevent too rapid evaporation, the patient meanwhile struggling in wild excitement, can we wonder, that only enough is inhaled to keep up this excitement, and that the anæsthetic should be blamed. No! be as cautious as you please with chloroform, and while not neglecting other precautions, have an eye to the quantity you are using; but if ether be the chosen anæsthetic, do not fear that you will have *too much*. Although somewhat Hibernian, one might assert that "you never have enough ether until you have *too much*." The sponge or cloth should be saturated, and, (guided by the pulse,) the anæsthetic effect may be regulated by its approach or withdrawal, from the nose and mouth of the patient.

Permit me now, briefly to repeat, in view of what has been stated, the principal points to be observed in the administration of ether; some of them will apply equally well to chloroform and other anæsthetics.

First; when there is time, before the operation, I endeavor to familiarize the patient with the smell of ether, and to a certain extent with its effects; so far at least as the slight giddiness and exhilaration which a little smell of it upon a handkerchief will produce. I have found this to have more effect in convincing a nervous patient that there was "nothing very alarming about it," than the best arguments. Having then, at the start, got the patient into as quiet a state as possible, and having endeavored to impress upon his mind that he must, however bewildered, think all the time, that he must "*keep still*,"—it is of great importance that the by-standers

should keep silent. An injudicious remark, or laugh, on their part, often startles the patient from the beginning of a dream, during which, if not interrupted, the operation might have been performed, and brings on the excited state every one must deprecate. *Keep the sponge full of ether*; it is a good plan to cover it with a towel in the form of a cone; better still, perhaps, the plan of many Surgeons, to use the towel alone. Urge the patient to inspire deeply after each cough. If induced to do this, he will be very rapidly affected. It is almost needless to say, the pulse should be carefully watched. False teeth are more easily removed before etherization, than fished up from the pharynx of a half-suffocated person afterwards, as I have known happen. It is always well to provide a sufficient force to hold the patient, if inclined to be violent; the poorest plan is, to attempt to restrain him at all, if you are unable to hold him, until the ether renders him helpless. It is better to remove it altogether and start again; for ineffectual struggles alarm the friends present, and exhaust both patient and Surgeon. By placing him on the side, or at least keeping the head turned to one side, the expulsion of mucus will be much facilitated; also, there will be less danger of the occurrence of those spasms, or difficult inspiration, which take place during the more advanced stages of etherization, and which, I suppose, must be brought on by falling back of the tongue, in some measure. By attention to some of the minor details above stated, I think, the process of etherization might be somewhat approximated to the rapidity and certainty of anæsthesia by chloroform.

REPORT OF

A CASE OF SCHIRRUS OF THE TESTIS.

BY GEORGE W. BURKE, M. D., OF MIDDLETOWN.

Read before the Middlesex County Meeting, April, 1884.

Mr. L., aged 62, a gentleman of active habits, temperate and regular in his life, came to my office for advice on the 11th of Sept., 1863. He had a tumor of the right testicle which he supposed to be hydrocele, and which had been so represented to me by one of his friends who had long suffered from that disease. Before examination, preparations were made for tapping, for that was the object of his visit, but at the first inspection I discovered that very little water existed, and that the tumor consisted of a very hard, irregular, oblong mass, already pressing into the external abdominal ring. No cause could be assigned for this growth, which was of two years' duration, except the fact that when a child he had mumps at which time the testis was involved, becoming much diminished in size and remaining in that condition until the commencement of this affection. He had suffered from inguinal hernia for which he had worn a truss, but the growth of the tumor had rendered the truss unnecessary and uncomfortable, and had also obliged him to wear loosely the suspensory bandage which at first was a means of relief. There was also at this time some swelling of the foot and ankle of that side, due to enlargement of the internal glands. He suspected that this had some connection with the main disease, and although I was well satisfied of its malignant character, I did not choose to increase his alarm, but simply coincided with him in the opinion that there was a connection between the two, and advised an early operation as the only means of relief. He agreed with me as to the course proposed, but thought he would consult other physicians. Some few days after, having obtained further advice, he saw me again and said he had decided to have the tumor removed, but would wait a

little longer. During this time the limb was increasing in size, the pain in the testis more constant and severe, and the difficulty in walking becoming greater, until the 6th of October, when he was unable to walk or even rise without assistance. At this time I visited him and considering his entire condition judged it best to delay the operation for a few days until some efforts should be made for the reduction of the size of the limb, and the improvement of his general health.

I made accurate measurements of the limb, which were as follows viz :

Superior part of the thigh,	-	-	-	25½ inches.
Middle " " "	-	-	-	24½ "
Inferior " " "	-	-	-	20 "
The sound limb measured around the middle,				17 "

After nine days treatment, the limb was diminished in size and much softer, and the general health improved.

On the 15th of October, with the assistance of Dr. Baker, I removed the tumor while the patient was under the influence of ether. The hair being freely shaved from the parts, a straight incision was made from the external ring to the base of the scrotum. On opening the sac about half an ounce of serum lying on the anterior surface of the testis, escaped,—the rest of the tunic was closely adherent, and resisted all efforts at separation, and on cutting farther down, it was seen that the disease had involved the tunic also.

The whole of the mass was dissected from the scrotum, which, of course, left the very short portion of cord which was not affected by the disease, enveloped in the thickened investments. These were carefully dissected off layer by layer, and the vessels tied separately. Three other arteries in the scrotum required ligature, and after assuring ourselves that there was no danger of hemorrhage, the parts were placed in apposition, and supported by strips of plaster, and pads under the scrotum. Three quarters of an hour were spent in the operation, chiefly in dissecting around the cord, and precautions against hemorrhage. The tumor measured six inches in its longest diameter and over three in its transverse. After recovering from the effects of the ether, the patient expressed himself as feeling very comfortable, and was quite incredulous as to anything having been done, "supposing," as he said, "that on account of the difficulty of etherizing him, we had given it up as a bad job."

The healing of the wound was slow but perfect; the last ligature, owing to the thickened state of the tissues, did not come away until the thirty-eighth day. The principal feature worthy of notice was, that much less tumefaction of the scrotum occurred, than is usual in such cases; which was probably due to the entire removal of the serous membrane. There was also much less pain and soreness.

The limb improved rapidly, measuring, on the 22nd, 7 days after the operation, 21, 20 and 17 inches respectively, and on the 2nd of November having the same circumference as its fellow.

When it became tolerably certain that he would recover from the operation, the friends anxiously inquired with regard to his future health, and I was obliged to explain to them the relation between the testicle and the lumbar lymphatic glands, and to show that the tumefaction of the limb was due mostly, if not entirely, to mechanical causes, that the operation would serve to prolong his life but that the period was uncertain. It was evident to my mind that the affection had commenced in these glands, and would probably at some time be propagated to others in the vicinity. I did not explain the matter to him until some time in the latter part of December, when the swelling and pain in the limb had returned, and when wearied with his repeated inquiries as to the value of certain local applications that had been recommended by his friends, I fully opened to him the full theory of the case, and advised gentle aperients, moderate daily exercise, and some remedies to stimulate the absorbents and relieve the pain. His general health was excellent; indeed, from the middle of November to the first of March he enjoyed life far more than previous to the operation.

On the 25th of March I was called to see him again. His left limb began to swell, his bowels were full, and on the right side of the abdomen extending from near the upper part of the ilium to the pubes, could be felt quite a cluster of enlarged, and exceedingly tender glands.

An attack of acute peritonitis supervened, from which, by the most heroic treatment, he so far recovered in about a fortnight, as to have a natural pulse and appetite. During the latter part of this affection he was troubled with *immense* quantities of flatus of such a fetid odor as to drive every one from the room, and from soon after that time until his death, which occurred on the 20th of

April, he had frequent discharges of dark and bloody matters that were nearly as disagreeable, and reminded one of a neglected dissecting room.

During the last two weeks of his life, the left limb was enormously swelled, and yet there was much less pain in it than in the right. A question might naturally arise as to the cause of this great enlargement when there had been no affection of the testis on that side. I think it can be satisfactorily answered by remembering that the external iliac glands communicate with the internal, and these latter freely with each other; that the efferent vessels from all of these as well as those from the testes pass into the lumbar glands, and that any obstruction in the latter would react on all below.

I have no doubt as to the propriety of an operation under such circumstances. I believe it prolonged his life, made him more comfortable, and with the knowledge that he had of the necessarily fatal termination of the disease, led him to the proper disposition of all his affairs before the final result.

BIOGRAPHICAL SKETCH OF THE LATE

ALDEN SKINNER, M. D., OF VERNON.

BY K. GREGORY HALL, M. D., OF VERNON.

Read before the Tolland County Medical Meeting, April 20, 1864.

Non ego contuterim jucundo sanus amici.—HOR.
The greatest blessing is a pleasant friend.

The noblest tribute paid to man is, that without ostentation or applause, coveting neither riches nor honor, seeking not office or renown; but with patience, cheerfulness, earnestness and faithfulness, he performs the various duties allotted him in life. Such a tribute many a country physician earns for himself; and although he may never receive it in this life or have it paid to his memory, yet the great I AM will not let such a life go unrewarded.

Alden Skinner was born in Vernon, Sept. 27th, 1799. He was the son of Elijah and Mary Skinner; his father a respectable farmer of the "old style." He had but little encouragement in his earlier years to seek after knowledge; so, whatever discipline of mind he possessed, the credit is chiefly due to himself. He studied medicine with his brother-in-law, Horatio Dow, M. D., who was at that time practicing in Vernon, and with Dr. Thompson, of Tolland. He attended lectures at New Haven, where he graduated, January, 1822. He went immediately to Willington, Ct., where he did an extensive business during seventeen years. He was married Dec. 9th, 1824, to Almira Nash, daughter of Ebenezer Nash, Jr., of Ellington, a prominent and influential citizen of that town. In Sept., 1839, he removed to Vernon, Ct., purchasing the location of Dr. Alvan Talcott, now of Guilford, Ct. Here he did a very extensive practice in this and surrounding towns, for twenty-two years. The few last years of his practice he spent in Rockville. Few men visit more

patients in a year than did he; and thus he continued an unremittent practice until he left for the war.

Dr. Skinner was a man possessed of an uncommonly strong and vigorous intellect. His memory was large and tenacious. His powers of perception were large. Hence, he had that quickness of apprehension, that vivacity of understanding, which easily took in and surmounted the most intricate and knotty parts of his profession. The Dr. was intent on professional progress. He was a well read man; perusing the best periodicals of the day. He loved his profession ardently, and devoted all the energies of his mind to it; and if he failed to keep pace with the progress of the science, it was only for lack of time. He was a most successful teacher of medicine; having instructed a large number of students. He taught practically, giving the results of his large and varied experience. From the commencement of his practice, he was a member of the Tolland Co. Med. Society, the meetings of which he always attended, taking a deep interest and an active part.

In his private character, Dr. Skinner was always the friend of the poor. His benevolence was ardent and disinterested. No wretched poverty-stricken one, pleaded to him in vain. His gratuitous professional services were large. The expectation of pecuniary compensation was not a motive in his friendly attentions and interviews with the sick. Socially, he was an ardent lover of his friends. His affections were deep, his sympathies warm, and he enjoyed society much. He loved to meet his medical friends and converse on medical topics. Though not a fluent talker, what he said was always to the point, and his wit was ready and flowing. His manners were very retiring and unassuming. He was not ambitious of political preferment, though he represented the town at one session of the General Assembly.

As a practitioner, Dr. Skinner was thorough in the examination of his cases, and rarely erred in diagnosis. Few men surpassed him in the skill of adapting remedies to unusual diseased states. His knowledge of remedies was excellent, and of indigenous ones somewhat extensive. He was fond of heroic remedies, and his treatment was heroic of its kind. Blood-letting, cathartics, antimony, opium and its salts, quinine, mercury and its preparations, arsenic, &c., were his favorite articles. He cared little for many of the weaker remedies in common use. He was governed, however

by reason rather than prejudice, in the matter. He detested obstinate chronic cases. He had not the patience for such. The greater the severity of the disease, with the more pleasure did he enter upon the treatment of it. In such cases he was self-reliant, having full confidence in his own powers, ripened by experience. He had little respect for platforms; yet was not regardless of authority: was always willing to listen to advice, and receive instruction, even from those many years his inferiors; one of the noblest traits of character. When, however, he had formed an opinion, he was firm and unyielding. He was accused of carelessness. To a very limited extent I think the application may be true. When there existed a necessity for medicines, he often administered them freely and in large doses; but we believe usually judiciously and safely. He trusted less to the *vis medicatrix naturæ*, than many. He was eminently a close observer of diseases, very familiar with all their features, quickly recognizing their peculiarities, and accurately foreseeing the changes which will probably take place in their progress.

None in the sick room was more cheerful or more hopeful than he. By a remarkable pleasant countenance and kind and encouraging words, honestly spoken and implicitly believed, he succeeded in inspiring hope, and a willingness in his patients to submit to whatever he might direct. No one exhibited more tender feeling for the suffering and afflicted than he. How often we have known him,—

“When dashing by the tear that must be shed,
He cheered the sufferer on his lowly bed;”

and when there was no hope, he wept like a child.

In his intercourse with medical men, Dr. Skinner was manly and honorable. In his consultations, he observed the most honorable and scrupulous regard for the character and standing of the physician in attendance. No hint or insinuation was thrown out, which could impair the confidence reposed in him, or in the least affect his reputation. And always, so far as consistent and truthful, he justified the practice of the latter, and more especially, if he was a young man. This was one of his noblest traits of character; a desire to aid the young practitioner, in every justifiable way, in obtaining practice. In this respect he exhibited a spirit so unselfish, so full of benevolence, as to be worthy of our highest admiration. Quackery, whether in or out of the profession, he despised.

In Nov. 1862, he went to New Orleans as Surgeon of the 25th Regt., C. V. He left his extensive practice, that he might still further add to his professional knowledge. But his hopes were blasted. He contracted a fever, (the malarious typhoid,) of which he died, after a sickness of only a few days, on the 30th of March, 1863, aged 67 years. His remains, brought to Rockville by his son, Harlin, who went out in the same expedition, were interred in the Vernon Center Cemetery.

Hundreds, from all classes, came to his funeral, to testify to the worth of the departed. And eloquent indeed did those tears testify to the affection and esteem in which he was held by many a heart.

BIOGRAPHICAL SKETCH OF
NORMAN LYMAN, M.D.

BY J. G. BECKWITH, M. D.

Presented to the Litchfield County Medical Society, April, 1864.

Dr. Norman Lyman was born in the parish of Torrington, Litchfield County, on the 6th of Sept., 1787. He prepared for College at the Morris Academy, in the town of Litchfield, and would have entered the Junior Class at Yale College, had not his feeble health compelled him to abandon the idea of a Collegiate education at a public institution; but he found time, while teaching a select school in Litchfield, and during his subsequent life, to prosecute his studies, until he had completed a full Collegiate course, and made himself a most accomplished scholar.

During his residence in Litchfield, he entered the office of the distinguished Dr. Sheldon, who placed a high estimate upon his abilities. He completed his term of study with his brother, Dr. Elijah Lyman, of Torrington, who afterwards removed to Warren, and the two Lymans now repose, side by side, in the cemetery of that town.

At the age of twenty-one, Dr. Lyman was licensed to practice Medicine by the Board of Censors for Litchfield County; and in 1831, he received the Honorary Degree of Doctor of Medicine, from the Corporation of Yale College, on the recommendation of the Connecticut Medical Society. He was elected a Fellow of the State Society, and was scarcely absent from any Convention of his professional brethren. These Conventions were among the happiest days of his life. His genial disposition, ready wit, exhaustless fund of information, his recollections of men who were the companions of his early days, and whose sayings were proverbs in the profession, made him at all times the most social and interesting of companions. Dr. Lyman settled in the town of Glastenbury, Hartford County, and practiced there successfully nineteen years, until the death of his brother, Elijah, of Warren,

when he removed to that place, and succeeded to his practice, and remained there until his death, a period of twenty-one years, making an aggregate of forty-one years of practice. During this long period of time, he had tested the different systems of practice recommended in the books, and by the eminent writers of the day, and had subjected them to his discriminating observation in the treatment of disease; his mind had become one great store-house of practical knowledge and medical observation, in which nothing was ever lost, but so arranged that he could, at all times and in any emergency, make these treasures available. His mind acted with great rapidity; he saw the case before him in all its phases, and his far-seeing eye detected the point of danger at a glance, and guarded it with consummate skill.

His powers of memory were astonishing; it is related of him, that when a boy, he so fully committed the Bible and hymn-book, that he could recite most of the former, and any hymn of the latter, by giving him the first line; and could recite the New Testament in the original Greek, translating in Latin and English, from memory, to the period of his death; and was so familiar with the classics, that he could recite entire pages with perfect accuracy. It has been well said, that the medical profession are the best judges of individual worth and standing in the profession, and to Dr. Lyman was conceded a standing among the foremost in this country, which contains a number of honored names; men of great worth and of sterling merit.

Dr. Lyman was an exception, or a refutation, of that disputed point in philosophy, that strong memory and sound judgment are incompatible. It is not surprising that, with such superior qualifications for his profession, and the vast experience of a long life, he should have been the successful practitioner and the popular counsellor. He possessed an intimate knowledge of human nature, and was seldom deceived in his appreciation of personal or professional character. He observed the strictest professional etiquette, and would hold no communion with those who were not equally punctilious. His sympathies and prejudices were always strong, but seldom unreasonable, and were always in favor of sound men and sound measures: he adhered to the axioms and well-settled principles of practice which were sustained by the testimony of the ablest men in the profession, and which he had tested by his own experience and observation.

Dr. Lyman was, with all his attainments, a man of great modesty of character, plain and unassuming in his manners, and of great purity of heart, and led a blameless life. He never made a display of attainments which the occasion did not demand, and invariably declined all offices of honor and emolument which the public were disposed to confer upon him.

He was often called to leave the quiet and secluded field of his practice, for a more extended one, where his talents and professional services would have been more highly appreciated, and more liberally rewarded; but he as often declined, and continued, until his death, to devote himself to his profession, with a zeal which never shrunk from trial and hardship. He was a man of general education; he was an able theologian, and understood the natural sciences, husbandry, mechanics, architecture, engineering, and was useful to the public in many ways. He was a good citizen, a friend to order, and exerted a healthy influence on the institutions of education and religion. Dr. Lyman was also that largest style of man, an exemplary and consistent Christian. He was a member of the church, and never allowed any but imperative professional duties to interfere with his attendance upon the sanctuary. His life was controlled, in all its duties and relations, by the potent influences of religion; he believed that something more than stern morality was necessary to sustain the physician under the trying and crushing responsibilities of his profession. This reliance secured him the unwavering confidence of his patients, who regarded him as being actuated by the most noble sentiments of the human heart.

For nearly twenty years, the writer was often with him as counsellor, when the lives of his patients were threatened; and when the symptoms remained obstinate, he requested the attendance from day to day, not from want of confidence in himself, but from a feeling, that where human life was involved, the responsibility should not rest entirely with one physician, when it could be divided. I was called to visit him on the morning of the day on which he died, and found him in a dying state—he soon after expired. He had previously intimated to his family that the attack would be fatal, and expressed no fear of death, believing that the Redeemer would fulfill the expectations of those who confidently trust in him.

He passed away on the 20th of April, 1851, in the 64th year of his age, and the forty-third of his professional life.

BIOGRAPHICAL SKETCH OF
BENAJAH TICKNOR, M.D.

Surgeon U. S. Navy, Honorary Member of Conn. Med. Society.

BY J. G. BECKWITH, M. D.

Presented to the Litchfield County Med. Society, April 28, 1864.

Dr. Ticknor was born in Jericho, Vermont, in the year 1786. He was the eldest of nine children, who, with their father, immigrated to Salisbury, in this County, while they were of a tender age. The father was soon after killed by the falling of a tree, leaving the support of a large and destitute family upon the exertions of the mother and the two elder sons, Benajah and Luther. Thus thrown upon the world in a strange place, without friends or relatives, or means of support except manual labor, with a large family of helpless children dependent upon his own and his brother's efforts, he almost despaired of gratifying that insatiable thirst for knowledge which, even in childhood, manifested itself as the ruling passion of his soul: but, by his indomitable perseverance, he redeemed time enough from the hours which experience has found requisite for repose, to qualify himself to teach a common school. He was his own instructor, and received no further direct aid from educational institutions than a single year's tuition in a district school. While thus engaged, a teacher in winter, and a common laborer in summer, he prosecuted those studies which enabled him to pass a satisfactory examination for a license to practice medicine and surgery. He located in Sharon, in this County, and became a member of our organization. But this sphere was too limited for his aspirations; his thirst for knowledge demanded a more extended field of labor, and he made application to the Secretary of the Navy for the appointment of Assistant Surgeon. This application was successful, and in 1814, when twenty-eight years of age, he received the commission of Assistant Surgeon. Ten years later he received the commission of Surgeon, which appointment he held until his death. He was forty-four years in the service, and stood third on the list of

surgeons at the time of his death. Over fifteen years of this time were spent at sea, on important stations, and much of the time as Fleet Surgeon : for eleven years he was stationed at the Brooklyn and Boston navy-yards. The importance of the stations to which he was assigned, both at sea and on land, testify to the high estimation in which he was held by successive administrations. He received, in 1836, the honorary degree of M. D., from Yale College, and, in 1843, was elected an honorary member of the Conn. Med. Society. He was, emphatically, a self-made man, who, deprived of the advantages of even a common school education, became, by his untiring zeal and systematic study, one of the most learned men of the age. He spoke the modern languages with fluency, and daily read Latin, Greek and Hebrew authors. He delighted in mathematical studies ; the writings of La Place, and other abstruse authors, were familiar to him, and he extended his reading beyond the branches of education taught in the Universities of this country. The great success which crowned his efforts in the pursuit of knowledge and science, and the eminent position he occupied in his profession, are to be attributed, in part, to the allotment of certain hours of each day to particular duties and studies. His professional duties were never neglected, and the remaining hours had each its legitimate work : he rose early, and retired at a regular hour, and gave, after morning and evening devotions, all the time that was not necessary to repose, to reading, study and meditation ; not, however, neglecting proper exercise for the preservation of health. With such a system of intellectual and moral development of the entire man, it may not be surprising, that with unusual native talent and intellectual power, a long life should yield such a rich and abundant harvest. He wrote much and well, and his style was forcible and concise ; he never used, in conversation or writing, an unnecessary word. His observations on the nature and treatment of diseases in tropical climates, with cases which came under his observation and professional care, were eagerly sought after by the Medical Journals, and were very popular with the profession ; and we hope that much valuable matter which he withheld from the public, may yet be published, for our benefit.

He was tall and stately in appearance, courteous, dignified and manly in his bearing, modest, reserved and unassuming in conversation, abstemious in his living, temperate in his habits, faithful in

his friendships, and reliable at all times and under all circumstances. He obtained an influence with the Naval Secretaries of successive administrations, which he exercised for the promotion of personal merit, and the good of the service. He was emphatically a "nobleman of nature," who ennobled humanity; and he was, withal, a consistent Christian, ardently devoted to the worship of the Episcopal Church, and holding the office of senior warden at the time of his death.

He married, late in life, Miss Jessie Bostwick, daughter of a deceased Episcopal Clergyman. He had no children, but adopted and educated several orphans. The prudent management of his pecuniary affairs enabled him to make large donations to the active and useful charities of the day. And we regret to learn that a legacy of ten thousand dollars, to a missionary object, may fail of its destination, in consequence of the unnecessary restrictions which the law of the State of Ohio, where he died, have imposed upon such bequests. There was no ostentation in these deeds of mercy, for the name of the donor was seldom published, as he made it a principle, "not to let his left hand know what his right hand did."

It was the pleasure of the writer of this brief memoir of Dr. Ticknor, to spend the summer of 1829 with him, in the family of his brother, Dr. Luther Ticknor, of Salisbury, in intimate relations of friendship; and long excursions together, in that delightful region of hills and lakes and mountains, made the writer familiar with his character, habits and opinions. His intense love of the sciences, his habits of study, and his solitary walks of meditation, his systematic arrangement of time, are truly and accurately given in this brief and imperfect Biography, which we have attempted to give you of this extraordinary man—who, by self-reliance, persevering labor, untiring industry, and a consistent Christian life, made himself a model of a character as perfect in all respects as humanity will allow, in our present imperfect state of development. His record is on high, and needs no eulogy of ours. For some years previous to his death he had retired from active service, to Ann Arbor, Michigan, his health having been impaired by long and arduous service, and by disease incident to tropical climates. He gradually wasted by the slow decay of physical strength, until, on the 20th of Nov., 1858, he passed away to the regions of perpetual happiness, where the untrammelled mind can expand forever, and find new sources of enjoyment and new fields of investigation.

BIOGRAPHICAL SKETCH OF THE LATE

ASAHEL M. HUXLEY, M. D., OF GOSHEN.

BY J. G. BECKWITH, M. D., OF LITCHFIELD.

Asahel M. Huxley was born in Sept., 1805, in New Marlborough, Mass. His father was a respectable farmer of that town, and gave him a preparatory education for the study of medicine in the schools of the vicinity. He pursued his medical studies, for which he early evinced a decided preference, with the late Benjamin Welch, M. D., of Norfolk, and attended two courses of Lectures at Pittsfield, and received from the Berkshire Medical Institution the degree of M. D. He commenced practice in Cornwall, in this State, where he remained three years, and removed to Woodbury in 1836, and continued practice in that place until the year 1842, when he located in Goshen, and was soon the only regular physician in that ancient town, and remained so until the time of his death, a period of twenty-one years. While living in Woodbury, he was united in marriage to Miss Mary Miner, daughter of the late Matthew Miner, Esq., who survives him, and sustains, with Christian fortitude, the desolation which surrounds her in the death of her husband and the sons who had clustered about the domestic hearth, and made her happy.

Dr. Huxley was about the medium height, of strong muscular development and vigorous health, which enabled him at all times to discharge the duties of his profession with promptitude; and, even under the most untoward circumstances, he never declined answering the calls that were made upon him in that mountain region. He was faithful and devoted to the profession which he loved. Kind and social with his patients, manifesting deep sympathy in their behalf, he was endeared to them in the double bond of friend and physician.

He was never absent from home, except in attendance upon a

Medical Convention, or a sick relative, even for a single night: declining all positions in political life, he devoted himself untiringly to his profession.

He was a good citizen, and possessed in all respects the public confidence. As a physician, he was careful in the selection of remedies, and faithful in observing their effect upon disease. The writer of this brief notice was often with him in consultation, and remembers the deep interest he always manifested in the result of his case. He was considered a successful practitioner, and was esteemed by his professional brethren for his many virtues of character, both private and professional.

Dr. Huxley took a deep interest in the present unhappy civil war, and two of his sons entered the ranks of the 19th Regt. Conn. Vols. He observed to a friend, that to resign his two sons to the chances of war, was one of the most trying acts of his life; but the sacrifice was made. Parental solicitude on account of the ill health of his eldest son, impelled him to visit Alexandria, Va., where the 19th Regt. was stationed. On the 29th of Dec., 1863, he received a telegram, requesting his immediate attendance upon his son Henry, who was reported dangerously sick. He immediately obeyed the summons, and devoted himself unceasingly to him, under the most painful apprehensions of the result of his case; returning from the hospital to his quarters, when he had been there a week, he observed that his son's symptoms were more unfavorable, and manifested deep concern. Sitting down to dinner soon afterwards, he entered into conversation as usual, but, soon uttering an exclamation, he placed his hand upon his heart, and gasping once or twice, he fell into the arms of his friends. The silver cord was broken, and life's drama closed; and he who had obeyed the calls of suffering for thirty years, is placed, in an instant, beyond the reach of human skill, and "enters that bourne from whence no traveler returns." Thus passed away our professional brother, in the 59th year of his age, and the 29th of his professional life. The virtues of his character will be held in affectionate remembrance by his townsmen and many friends, whom he had faithfully served in his day and generation. But his memory will be more tenderly cherished in the heart of that lone widow, almost crushed beneath repeated bereavements in the loss of her husband and that son whom he had probably died to save.

Dr. Huxley was a Fellow of the Connecticut Medical Society, and a Permanent Member of the American Medical Association. He attended its Convention at New York in 1853, and was a passenger on the train at the Norwalk disaster, which proved fatal to so many. The car which he occupied broke in two immediately before him, into the engulfing chasm, and he was saved, to sink as suddenly, at a future time, into the ocean of death. How striking is the oftenly repeated sentence, "In the midst of life we are in death."

BIOGRAPHICAL NOTICE OF

DE WITT CLINTON LATHROP, M.D., OF NORWICH.

BY ASHBEL WOODWARD, M. D., OF FRANKLIN.

Among the classes that have entered earnestly into the struggle of the Republic for the maintenance of its integrity, the medical profession has not been backward in the number or the quality of the men it has furnished. In many cases surgeons have made great personal sacrifices from motives of pure patriotism. The moment the Union armies began to gather, not a few physicians of our own state, who were well established in business and surrounded by every thing that can contribute substantially to the enjoyment of existence, were seized by an irrepressible impulse to devote their time, their talents, and if need be, their lives, to the service of the country.

Of this number was Dr. Lathrop of Norwich. A man of staunch principles, earnest patriotism, and unquestioning faith in the justice of the federal cause, he felt it to be both a duty and a privilege to enter the service of his country. During the early months of the war, he was extremely impatient of the restraints of civil practice, detaining him as they did from the fateful fields where armies were joining in fierce combat to decide the destiny of the nation. While a struggle involving interests so momentous and so precious was in progress, he regarded all considerations of a merely personal character as too insignificant to be taken seriously into account in determining his course of action. His resolution was based upon convictions of duty. Having once formed it, he was the man to devote his entire energies of body and mind to the work. From the day he joined his regiment until stricken down by fatal sickness, he labored with a degree of zeal and self-forgetfulness that wore out his strength, and eventually cost him his life. Whether called to the side of the suffering by day or at night, he always responded with alacrity, though not unfrequently when more fit himself for the hospital than for work.

Dr. DeWitt Clinton Lathrop was born in Franklin, Conn., June 20th, 1819. Having pursued his preparatory medical studies in the office of the writer of this memoir, he graduated at the Yale Medical College in 1845. At first he settled at Ashford, but subsequently removed to the village of Windham, where he soon acquired an extensive practice. His strict integrity, sound judgement, and many excellent qualities of head and heart soon gave him a position of commanding influence. Feeling that this field was too narrow, he afterwards removed to Norwichtown, his numerous friends at Windham giving him up with great reluctance. Similar success awaited him at his new home. In a few years he became thoroughly established in business and in the confidence of the community.

While in the full tide of a growing practice, the rebellion broke out, and he determined to enter the army. He was commissioned as First Assistant Surgeon, September 21, 1861, and was attached to the Eighth Regiment. After six months of faithful and laborious service, he died at Newbern, N. C., April 13th, 1862. Ten days later, his remains were brought North. Impressive funeral services were held in the church at Norwichtown, Rev. H. P. Arms delivering a funeral discourse. Large numbers from the city and surrounding towns were in attendance. The remains were then taken to Windham for interment.

Dr. Lathrop was a man of sterling character. For many years he was a member of the congregational church, and for some time one of its officers, ever adorning his christian profession. He was a wise counsellor, a fast friend and judicious practitioner. More solid than showy, it required time to become acquainted with his many excellences, but when he once secured a hold upon an individual or a community, the tenure was permanent.

While a resident of Windham, he married Miss Charlotte, a daughter of the late Thomas Gray, Esq., of that town. He left a widow and three sons.

BIOGRAPHICAL SKETCH OF
ASA SPAULDING, M. D.

BY JOSEPH OLMSTED, M. D.

Asa L. Spaulding, M. D., was born Sept. 18, 1806, at Killingly, Conn. His parents soon after removed to Colchester, Conn., where he was fitted for College at "Bacon Academy." He relinquished, however, the idea of a collegiate education, and entered upon the study of medicine, which he pursued in part under the instruction of Dr. North of Hartford, Conn., and subsequently, in the Medical School at Yale College, from which he received his degree. He commenced practice in Marlborough, Conn., whence he removed to East Haddam, Conn.; continuing but a short time in each of these places, he came in the spring of 1839 to Enfield, Conn., where he spent the remaining twenty-five years of his life, almost constantly engaged in the duties of his profession.

He was a man of marked energy of character—a quality which showed itself in the vigorous support he rendered in church and religious matters, no less than in his successful professional life. He died Jan. 7th, 1864, of Typhoid Fever.

Dr. Spaulding was twice married: in 1834, to Miss Mary R. Dixon; and in 1843, to Miss Sarah H. Field. He was the father of four children, all of whom are living.

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OF THE

CONNECTICUT MEDICAL SOCIETY,

HELD AT

HARTFORD, MAY 24th and 25th, 1865.

NEW HAVEN:

T. J. STAFFORD, PRINTER, 235 STATE STREET.

1865.

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The Course of Lectures for 1865-6 begins on **THURSDAY**, September 14th, and continues four months.

WORTHINGTON HOOKER, M. D., Prof. of Theory and Practice.

BENJAMIN SILLIMAN, M. D., Prof. of Chemistry.

STEPHEN G. HUBBARD, M. D., Prof. of Obstetrics.

CHAS. A. LINDSLEY, M. D., Prof. of Materia Med. and Therapeutics.

FRANCIS BACON, M. D., Prof. of Surgery.

LEONARD J. SANFORD, M. D., Prof. of Anatomy and Physiology.

Moses C. White, M. D., Instructor in Microscopy.

W. Lockwood Bradley, M. D., Demonstrator, and Curator of the Museum.

The Professor of Obstetrics will give special lectures on Diseases of Women and Children.

CLINICS.

Medical and Surgical Clinics are held regularly every Wednesday at the College, and during the Course a great variety of cases will be presented for consultation and operation.

EXPENSES.

The *fees* for the Lectures, which are required in advance, are *Twelve Dollars and Fifty Cents* for each Course, except that on Obstetrics, which is *Six Dollars*; Matriculation, \$5; Demonstrator's Ticket, \$5; Total, \$78.50. Graduation Fee, \$15.

The tickets of all the Professors, or a part, may be taken in any one season. Those who have attended two full courses in this Institution, are entitled to admission to future courses gratis. Those who have attended one full course in this Institution, and also one full course in another similar Medical Institution, will be admitted to a full course on paying the Matriculation Fee.

CHAS. A. LINDSLEY, M. D.,

Dean of the Faculty.

EDITORIAL NOTICE.

The Committee of Publication would take this opportunity of reminding the Society that the character and value of its yearly issue must depend mainly upon the exertions of the individual members. To this end they desire earnestly to impress upon each the obligation, for the general good, of furnishing communications upon such questions of general interest as their personal experience or reflection has especially tended to elucidate. Reports of solitary cases, unless to suggest or establish some main principle, are suited rather to the pages of a medical journal than to a publication like this, issuing but once a year.

It is requested that Biographical Sketches of deceased members be brief—concisely stating such facts as will prove of interest to the profession of the State at large.

THE ATTENTION OF CONTRIBUTORS IS ESPECIALLY DIRECTED TO THE IVES PRIZE OF THIS YEAR (see Appendix E.), for which a general competition is solicited.

N. B.—Any person having duplicate copies of the Proceedings of the Connecticut Medical Society, of earlier date than 1828, would confer a favor by donating them to the Society. Copies of any year for which the Society has duplicates, will be furnished in return. Address

M. C. WHITE, Sec'y Conn. Med. Soc.,
New Haven, Conn.

MEDICAL COMMUNICATIONS.

ARTICLE VI.

Public and Benevolent Institutions and Movements, WITH WHICH THE CONNECTICUT MEDICAL SOCIETY HAS BEEN PROMINENTLY IDENTIFIED.

Being the Annual Address delivered before the Convention, in the
Hall of the House of Representatives, May 24th, 1866.

By the President of the Society,

BENEZER K. HUNT, M. D., OF HARTFORD.

[After some prefatory remarks relating to the state of the Country, and our late National Bereavement, the President addressed the Convention as follows:]

IN considering the subject of a suitable Address before your Honorable Body, on this occasion, it has occurred to me that a review, somewhat in detail, of the relations of this Society to several important undertakings, having all of them for their object, so far as applicable, the intellectual and moral, but more especially the physical welfare, of large classes of our fellow-citizens, might not prove an unwelcome theme; nor one which might not be advantageously employed to encourage and strengthen us, in still further attempts, as opportunity offered, in a like direction.

It will also show, what ought always to be kept prominently before our minds, the value of united and harmonious effort; and cause us, it may be, to appreciate more highly than heretofore, the benefits which this Society may be instrumental in conferring, both upon its members and the people of this, our beloved Commonwealth.

In the fulfillment of my purpose, I propose to recount, in their chronological order, such only of the more prominent measures with which this Society has been intimately related, as were calculated to call forth a public interest, and required for their success, the hearty good-will and coöperation of the masses of our population.

It will be pleasant, moreover, to observe, what our records abundantly prove, that none of the measures which this Society has either originated, or set itself deliberately to sustain, have proved, in the end, either to be unworthy of the efforts which have been made in their behalf, or failed, generally, of marked success.

Before proceeding to the main subject of this discourse, however, it will be proper to recall, together with certain other matters of historic interest, the fact, that the act incorporating the Medical Society of Connecticut was passed at the May session of the Legislature, 1792; and the first Meeting under the Charter, was holden at the Court-house in Middletown, on the second Tuesday of October following. Between this period and 1800, three amendments were made to the original act, which, as to its principal features, still survives.

The first legal Convention, whose published "doings" have, as a whole, come under my observation, was that which was holden at New Haven, October 14, 1801. At this meeting, a Committee was appointed to revise the by-laws of the Society, and report to the next Convention.

This, an adjourned Convention, was holden at Hartford, May 19th, 1802, when it was *Voted*, That the revision of the by-laws, as reported by the Committee appointed in October last, be accepted and printed; and that the other "doings" of the Society, *from its origin*, together with the names of its Officers, Fellows, etc., be added, by way of Appendix.

In conformity with the foregoing vote, the Chairman of the Committee of revision, Dr. Wm. B. Hall of Middletown, was appointed to attend to the subject matter thereof; and through the politeness of one of our associate members, it has been my privilege to obtain and examine the Proceedings of the Society, as prepared by Dr. Hall, during the years referred to.

Details are of course omitted; and only the more important matters, Resolves, Ordinances, etc., published; furnishing abun-

dant evidence, however, of the strong vitality of the Body, and the spirit of progress which pervaded it.

Though nothing bearing directly upon the subject before us, appears in these early records, yet a few brief extracts will, it is believed, prove both interesting and instructive.

One of the first acts of the Society, as appears therein, was to offer, in 1793, Prize Questions, "for discussion by the Faculty and Literati of the State, and elsewhere." At several other times between this period and 1800, prizes were also offered and papers presented for the award.

In 1801, three questions were submitted for prizes, the premium for one of them being Parkinson's Voyage to the South Seas; for another, Dr. Fothergill's Works.

"It is expected," says the record, "that gentlemen who are disposed to write on any prize questions, will transmit their compositions to the Secretary, in the English, Latin, or French language, on or before the first day of the sitting of the Convention; and the successful candidates shall receive the thanks of the Society, their names be published in the public Gazettes of the State, and their Dissertations kept on file for publication."

Who, and how many, stimulated by such tempting offers, were induced to compete for these prizes, nowhere appears. It can hardly be supposed that some were not found, sufficiently bold and ambitious to enter the lists, and who, had success crowned their endeavors, would have received the public acknowledgments of the Society. Be it as it may, we are forced to the conclusion, in the absence of evidence to the contrary, either that no papers were offered, or if offered, were found unworthy of the prize.

We further find, what we can now hardly realize to be the fact, that for many years of its early history, one of the most important duties of the Medical Society, consisted in the examination of candidates for the practice of medicine. An examining Committee was appointed at each annual Convention, consisting of three members of the Society for each County, who were by law empowered to fill up blank licenses, previously signed by the President, to which the seal of the Society was affixed, countersign and deliver them to such candidates in the several Counties as, on examination, were deemed worthy to receive them.

It became necessary also, in connection with this arrangement, to establish a standard of qualifications for the guidance of the

several County Committees, and to this end, the following vote was in substance, passed: That each candidate, before he can be admitted to an examination, must be twenty-one years of age, of good reputation, and if he has a college education, must have studied two years with a respectable physician or surgeon, and if he has not such preparatory education, must have studied three years; requirements, it will be observed, which have not been increased to this day.*

As has been already intimated, the duty of the Committee of publication concludes with a Catalogue of the Officers, Fellows, and examining committees of the Society, from 1792 to 1800, inclusive, which is complete throughout, for nearly every County.

From the foregoing date to 1810, inclusive, but a single printed copy of the Proceedings of the Medical Society has come into my possession; viz: that of 1805, nor does this furnish anything specially worthy of notice.†

During the interval, however, several valuable communications, still in print, were either read in Convention, or prepared by their authors for the use of the Society.

One of these papers, of twenty-four pages printed matter, on "Petecchial or Spotted Fever," was written by Dr. Timothy Hall, and dated 1810.

Another, on "Aliment," a learned and able paper, by Dr. Wm. Tully, is without date.

Two shorter, but interesting papers, were also presented by Dr. Eli Ives; one of them in 1806, the other in 1809.

Several other papers, all without date, but doubtless belonging to the same period, are also on record.

The first of the series of movements, which at one period or another signalized the history of the Society, relates to the founding of the Medical Department of Yale College, an account of

* At the time of granting the charter to the Medical Institution of Yale College, so much of the original act of incorporation of the Medical Society as related to the appointment of County Committees for the examination of medical students, and the granting of licences to them, was repealed; which authority was from that time forth transferred to the Committee of examination, as found in the act of incorporation of the above named Medical Institution, and still vests in said Committee.

† The Records of the Society in manuscript, complete from October, 1792, to the present time, are in the hands of the Secretary of the Society; an interesting and important fact.

which appears entire only among the manuscript records of the Society, and as these are available to but few of our members, at the risk of becoming tedious to some, I propose to give it at length.

From these it appears that at the Adjourned Convention, holden at Hartford, May 20th, 1807, a letter was presented from a Committee of the Corporation of Yale College, upon the subject of establishing a Medical Institution, to be connected with the College, and to constitute one of its Departments.

The President was directed to answer the letter, and a Committee, consisting of Drs. Watrous, Cogswell, Barker, Ives and Foot, was also appointed to confer with the Committee of the Corporation at the next Commencement, on the subject contemplated in their letter.

At the Annual Convention, held at New Haven, October 14th and 15th following, it was *Voted*, That Drs. John Barker, Eli Ives, Thomas Goodsell, Joseph Foot and Timothy Hall, be a Committee to confer with the Committee from the Corporation of Yale College, to make and receive propositions for forming a Union with said College, and report to this Convention.

They reported in favor of a Union with the University, says the record, and their report was accepted by the Convention.

It was then *Voted*, That Drs. Timothy Hall, John Barker, John R. Watrous, William Shelton, Siah Fuller, Natheil Perry, Smith Clark and John S. Peters, be a Committee, in conjunction with a Committee of Yale College, for the purpose of forming a Constitution to answer the purposes proposed in the contemplated Union with the Medical Institution about to be established in said College, and report to the next Convention.

At the adjourned Convention, holden in Hartford, May 18th and 19th, 1808, the report of the above named Committee was read, and taken into consideration. It was amended in certain particulars and, as amended, adopted by the Convention.

Whereupon, it was *Voted*, That a Copy of the Articles of Union with Yale College be transmitted by the Secretary of the Convention to the Clerks of the several Counties, who were required to give public notice in their respective Counties to the Members of the Medical Society; warning them to meet to take the same into consideration, and their approbation or disapprobation be reported to the next Convention.

At this, the Annual Convention, held in New Haven, October 19th and 20th following, it was *Voted*, That the Articles of Union of the Medical Society, with the Medical Institution about to be established in Yale College, lay open for discussion: after which it was *Voted*, That Drs. Eli Ives, Samuel Woodward and John Bester, be a Committee to confer with the Committee of the Corporation of Yale College, upon the Articles of Union, as amended, and other matters they may think proper, and report to this Convention.

Their report having been made, it was *Voted*, That the Articles of Union with the Medical Institution about to be established in Yale College, as amended by this Convention, be adopted; and that a copy of them, certified by the Secretary of the Convention, be transmitted by him to the Corporation of Yale College.

The subject next appears at the Annual Convention, held in New Haven, October 18th and 19th, 1809, when it was *Voted*, That Drs. John Barker and Thomas Hubbard be a Committee to wait on his Honor, the Lieut. Governor, to ascertain if anything, and what, was done by the Corporation respecting the Articles of Union with the Medical Institution in Yale College, transmitted by the Secretary, and report to this Convention.

The Committee reported that through some neglect or inadvertence they were not laid before the Corporation.

Whereupon, it was *Voted*, That Drs. Barker and Goodsell be a Committee to wait on Mr. Silliman, and request him to lay before the Corporation in September, 1810, the Articles of Union, as amended by the Convention.

At the Annual Convention of the following year, 1810, it was *Voted*, That the alteration recommended by the Corporation of Yale College, in the Articles of Union, as stated upon a memorandum, signed by David Ely, Scribe, and refers to the eighth line of the third page of said Articles, be and the same is hereby ordered to be a part of said Articles, as amended.

It was further *Voted*, That Drs. John R. Watrous, Mason F. Cogswell and Eli Ives, be a Committee to confer with the Committee of the Corporation of Yale College, respecting the Union of the Medical Society of this State, with the Corporation of said College, respecting the method to be pursued to accomplish said Union, and that they be empowered to take such measures as they

may judge expedient to bring the matter before the Legislature for an Act of Incorporation.

Finally, it was *Voted*, That Drs. John R. Watrous, Mason F. Cogswell and Eli Ives, be a Committee of Nomination, to confer with a like Committee of the College Corporation, for the purpose of making a nomination from which the Professors of the Medical Institution shall be elected.

At the Convention of the following year, 1811, held at New Haven, it was *Voted*, That the Articles of Union between the Medical Society and Yale College be printed, and compose a part of the Journal of this Society.

These Articles, twelve in number, are incorporated in the Act of the Legislature establishing the Medical Institution, passed at the October Session, 1810; and constitute its principal features. Substantially, the Act empowers the President and Fellows of the Medical Society to unite with the President and Fellows of Yale College for the purpose of forming a Medical Seminary, to be styled the Medical Institution of Yale College.

A single feature of this charter, well worthy of notice, and which proves at once the community of interest and feeling which governed the contracting parties, in the organization of the Medical Institution, was this:—that the Committee of Examination for the practice of Physic or Surgery, shall consist of the Professors of the Medical Institution of the College, and an equal number of the members of the Medical Society appointed by the Medical Convention; and the President of the Medical Convention shall be *ex-officio*, President of the Examining Committee, with a vote at all times, and a casting vote when there is a tie.

The friendly disposition which animated all parties to the foregoing contract, and the mutual confidence and respect which it implied, there is every reason to suppose, still continues; and, it is believed, has never failed to manifest itself on all suitable occasions.

As will be noticed further on, and it is but one example among many, the action of this Society in relation to the founding and organization of the Connecticut State Hospital at New Haven, indicates a degree of unselfishness, and, at the same time, a warmth of friendship, which it is delightful to recall. On the part of the School and its friends, the following, which appeared in an introductory lecture delivered at the opening of the session of 1858,

by Dr. Knight, probably well expresses the feelings which there prevailed.

"The result of this arrangement—the Union before explained—has been eminently happy; the members of the society became interested in the school, we have at all times had the benefit of their counsel and support, and it gives me pleasure to state that no instance of disagreement has ever arisen among the members of the Board, or between the School and State Society."

This feeling of mutual respect and esteem, we trust and believe, still continues without abatement. Few, if any, of our Medical Schools, have had more faithful or competent professors, or dispensed in larger measure sound and useful instructions to those who have availed themselves of their advantages.

The correctness of this statement has been established, if, indeed, it required verification by the fact, that our Army Medical Board, whose experience has been by no means limited, either as to time or the numbers of those who have been examined by it for positions in the Army, has found the graduates of our School second to none in point of qualifications. All that is now required, to enable it to maintain its position as a first class Institution, indeed, to render it preëminent among kindred Institutions, is the endowment of its Professorships, an effort to accomplish which, great as it may seem to require, our relation to it fairly calls upon us to undertake.

Upwards of fifty years of uninterrupted service, justly entitles it, for our own sakes, as well as for the benefit of the School itself, to this renewed evidence of our continued confidence and esteem.

Another scheme, having in view alike the care of the Insane and the curative agency of an Institution for their relief, early engaged the attention of the Society.

When it is remembered, that, at the time these efforts were initiated, very little was known, even by the profession, as to the numbers of this unhappy class, much less as to the proper method of treatment; when, in fact, there were but three Institutions at that time existing in the land for the exclusive treatment of insanity, and these of limited capacity, and located in the immediate neighborhood of large cities; to move under such circumstances, for a Hospital to supply the demands of the masses of our population, the poor as well as the rich, bespeaks both an active benevolence and an intelligent boldness quite in advance of the age.

Yet, in the Proceedings of the Medical Society, as early as 1812, appears the following: A communication having been laid before the Convention, through Dr. John R. Watrous, from Dr. Nathaniel Dwight of Colchester, upon the subject of a Hospital for Lunatics in the State of Connecticut, by the consideration of the importance of the subject,

Voted, That the thanks of the Society be given to Dr. Dwight, for his communication, and Drs. Mason F. Cogswell, John Barker, Samuel H. P. Lee, Gideon Beardsley, Thomas Hubbard, Elijah Lyman, Richard Ely, Jr., and John T. Peters, were appointed to collect information concerning the lunatics in their respective Counties, and report to the next Convention.

Neither Dr. Dwight's communication, which so wrought upon the feelings of the Convention, nor any synopsis of it, or reference of any sort, appears in the Proceedings, so that we are left quite in the dark concerning it, except as to its leading or principal object.

Whether or not the above Committee reported, as requested in the vote just recited, is not known; yet, in the proceedings of the next year, a vote is passed, continuing the same committee, with the substitution only of the name of Dr. Joseph Foot for that of Dr. John Barker.

It might reasonably have been expected, that a Committee, consisting of one from a County, and of members of well tried efficiency and benevolence, would, within a period of two years, have so far attended to the duty assigned them, as to have reported, in part at least, and to have found material wherewith greatly to increase the interest of the medical profession in the subject, and also to arouse the public mind to a realizing sense of its magnitude and importance. Indeed, the bare recital of facts, which were probably known to every member of that Committee, would have produced a powerful impression, had they been published, and spread abroad throughout the State. It nowhere appears, however, that this or anything else was done, by this Committee, worthy of their high mission; and we are forced to the conclusion, that it attempted little, if anything. Doubtless a variety of embarrassments with which they were little inclined to contend, were found, on nearer and more critical observation, to surround the subject; resulting in a failure, unworthy both of the Cause and of the Committee itself. The Society, notwithstanding,

still clung to the subject, with a commendable tenacity, and in 1814, it was voted,

That Dr. Mason F. Cogswell be appointed to obtain information of the number of lunatics in the State, and the manner in which they are supported, by applying to the General Association.

It is mortifying to be obliged to record the foregoing vote admitting, as it does, a failure on our part to procure information which we had deliberately undertaken to obtain, and which it was especially our province to procure, and a willingness to appeal to the Congregational Clergy of the State for the information required; a Body having an efficient organization, doubtless, and reaching every town in the State; yet in no wise superior to our own, had we faithfully employed the means at our disposal. Dr. Cogswell performed the duty assigned him, and the following appears in the proceedings of the General Association, dated June 22d, 1815.

WHEREAS, Dr. Mason F. Cogswell and Dr. Nathan Strong, Jr., of Hartford—the latter name being omitted in the Proceedings through the oversight or neglect of the Secretary—on behalf of the Medical Society of Connecticut, have requested that the General Association would adopt measures to ascertain the number of persons in the State, who are in any degree afflicted with lunacy—of what age they are—of which sex—at what age they became so—and what is considered the cause of the calamity—with any other particulars concerning those unfortunate persons, which may be important with reference to the establishment of a Hospital on their account;

Voted, That the several District Associations be requested to attend to this subject, and make report to the General Association at its next session, concerning the several particulars above specified, and designating in their reports the towns in which such persons live.

In the Proceedings of the Association the next year, is the following: Received the reports of the several District Associations on the subject of lunatics, and committed them to Rev. Levi Nelson, to form from them a general report. On a subsequent page, is found in substance Mr. Nelson's report, which is as follows:

The Committee on the Subject of Lunatics, report, that according to the imperfect returns received, they find one hundred and forty-six persons, who are in different degrees deprived of reason. Whereupon, *Voted*, That the papers on this subject be delivered to Dr. Mason F. Cogswell and Dr. Nathan Strong, Jr., of Hartford.

No further reference to the subject appears in the proceedings of the State Medical Society, for several years.

At length, however, in 1821, the measure was again brought forward in Convention, and with such spirit and determination as to render it certain that the matter had at no time been forgotten, but that active and intelligent friends had been raised up in its behalf, who were resolved to press it to a successful issue.

Discussion, and a free interchange of opinions, resulted in the passage of the following resolutions:

First, That Drs. Thomas Miner, Eli Todd, Samuel B. Woodward, William Tully, and George Sumner, be a Committee on the Subject of a Lunatic Asylum, and report to the adjourned Convention.

This was holden in conformity with the following vote, viz: That this Convention will adjourn to meet at Hartford, on the first Wednesday of October next, *free of all expense to the Society*.

Meanwhile, their Committee was not idle, but industriously preparing for the Convention, whose action was, for the present, at least, to determine the fortunes of the proposed Institution. When the time for holding it arrived, they were present with an elaborate, well written report, embracing statistical returns from seventy of the one hundred and twenty towns then composing the State, and much other highly valuable practical information.

It produced its legitimate and expected effect upon the minds of the members, who endorsed it in the following vote: To accept and approve of the report of the Committee appointed at the Annual Convention in May last, on the Subject of the Establishment of an Asylum for the Insane.

Not content to make their report alone, the same Committee submitted to the Convention a Constitution for the "Society for the relief of the Insane."

This, after a free interchange of views, was also adopted as follows:

Voted, To accept the Constitution for the organization of a

Society for the relief of the Insane, reported by the same Committee, as altered and amended by this Convention.

So carefully and judiciously was this paper prepared, both as to language and ideas, that it was adopted as the basis of the act of Incorporation, and remains, as to its principal features, in full force, to this day. In conformity with one of its provisions, our Standing Committee for the nomination of a Physician to the Retreat for the Insane, was established; also its Board of Medical Visitors. But the labors of the Committee had not yet ended; funds were to be provided, and a Charter obtained for the proposed Institution.

To accomplish these indispensable objects, it was further

Voted, That Drs. Thomas Miner, Eli Todd, Samuel B. Woodward, William Tully, George Sumner, Jonathan Knight, and Eli Ives, be a Committee of Correspondence to carry into immediate effect the plan laid down in the aforesaid Constitution; and that the following persons be County Committees to coöperate with them.

Here follows a list of three from a County; among whom appear the name of the late Bishop Brownell, long President of the Board of Directors of the Retreat, Roger M. Sherman, Governors Wolcott and Peters, and others, among the best and most distinguished men of the State. The duties assigned to the Committee of Correspondence, though the County Committees had prescribed and important duties also to perform, were particularly arduous.

They were required to meet monthly; cause to be printed such documents as seemed best suited to promote the object in view; appoint agents to solicit subscriptions in every part of the State; and by correspondence with the County Committees, and their own observation, see that their agents were faithful and upright; to transmit to the County Committees forms for subscription, to be opened in each town in the State, etc., etc.

The County Committees were requested frequently to consult with each other, and communicate to the Corresponding Committee and to the public, whatever information may by them be deemed expedient. Succeeding this long catalogue of engrossing and responsible labors to be performed, was the following, worthy the early days of the Republic:

"Neither the Committee of Correspondence, nor the County Committees, are to receive any remuneration for their services."

The doings "of the adjourned Convention" concluded with the following votes :

1st. To appropriate \$200 from the funds of the Connecticut Medical Society, for the promotion of the objects of the Asylum.

2d. To print seven hundred copies of its proceedings for distribution.

At the succeeding Annual Convention, \$400 more were appropriated by the Medical Society for the same object, making in all an appropriation of \$600, which, taken in connection with the vast amount of gratuitous labor performed in committee, and the numerous friendly offices performed by its members generally, can but be regarded as a most generous and noble act, worthy of all praise, and to be held in lasting remembrance.

I have, myself, seen the list of subscriptions taken under the auspices of this Committee, in the different parts of the State, and though a number appear for sums of \$200, or thereabouts, a very large proportion of them do not exceed \$25 each; many are in sums of \$1 each, and one for 12½ cents. From such small beginnings, and such long and self-denying labors, did this noble charity date its origin.

The act incorporating the Retreat for the Insane passed in 1822, but for some reason, to me unknown, it was repealed, and another passed in 1824.

The only other vote, for many years thereafter, in reference to this Institution, was the following, passed in 1824 :

Voted, That the Committee appointed to nominate a Superintendent for the Retreat for the Insane, be directed to request its Directors to publish the terms on which they receive patients, and any other information concerning the Establishment which they may deem useful to the public.

From this time forward, it passes beyond the fostering care of the Medical Society; entering upon its career of usefulness, which is to extend for long years succeeding, it is hoped, till all who need its peculiar ministrations can find a home, and, if possible, a cure within its walls.

As its method of treatment, and the success which attended it, became known, those whose untiring efforts had been long employed in the noble work of founding it, were gratified and amply

repaid for all their labors and exertions in its behalf, by finding it to grow in popular favor, and enlarged accommodations required to meet the public wants, until, years before the last of those honored and excellent men had passed away, it had grown, by repeated additions, into a grand and imposing structure; dispensing its beneficent offices far and wide.

The subject of insanity, however, continued to claim the attention of the profession, notwithstanding the active agency of the Medical Society in the Retreat for the Insane, had, as compared with many former years, ceased. This is indicated in the resolves, which, from time to time, appear in subsequent years, one of which, passed in Convention in May, 1833, was as follows:

Resolved, That a Committee of two from a County be appointed to ascertain the number of insane persons in each town in their respective Counties; designating the name, age, sex and color of each person, and dividing such persons into three classes: 1st. Those supported by themselves or friends; 2d. Those supported by private charity; and 3d. Those supported at the public expense; and that a Central Committee of three be appointed to correspond with the County Committees and other gentlemen on the subject; and that the Central Committee report to the next Annual Convention.

Drs. Horatio Gridley, Amariah Brigham, and George Sumner constituted the Central Committee, who, so far as appears, did not comply with the terms of the resolve.

The next reference to the subject is found in the Proceedings of 1837, and is as follows: A communication was received from the Directors of the Retreat for the Insane, with a copy of a memorial to the General Assembly, petitioning for an appropriation, to provide an Asylum for the insane poor of this State. In consequence, it was resolved, that the Communication from the Committee of the Directors of the Retreat for the Insane, be referred to a Committee of one from a County, who reported the following: *Resolved*, That this Convention approve of the object of the memorial of the Directors of the Retreat, to the General Assembly, in regard to the indigent insane of this State.

The subject next appears in the Proceedings of 1839, in the words following:—*Resolved*, That a Committee of three be appointed to take into consideration the expediency of establishing a State Institution for the Insane Poor, and report to this Conven-

tion thereon; together with the course that would be most expedient for this Convention to pursue, relative to a petition now pending before the Legislature of this State on that subject.

The Committee made the following report, which was accepted, viz.: That in their opinion the cause of humanity and the public good would be promoted by such an establishment. Such an Institution has been advised by the Directors of the Retreat, by the former Conventions of this Society, and by the Committee of the Legislature to whom this subject was referred. We are of opinion that a Committee of this Society should be appointed to confer with the Legislature, and express, as the opinion of the Connecticut Medical Society, their high estimation of the advantages which would accrue from the contemplated establishment.

A Committee of three was accordingly appointed, consisting of Drs. Horatio Gridley, George Sumner, and Archibald Welch.

Again, in 1851, the subject appears, as follows: *Resolved*, That the President and Fellows of the Connecticut Medical Society, believing that the cause of humanity demands further provision for the comfort and well-being of the insane poor of this State, do most earnestly recommend to the Honorable, the General Assembly, now in session, to make liberal appropriations to the Retreat for the Insane, to be extended to such only as are unable, by reason of indigence, to secure the benefits of proper medical treatment, and that a Committee be appointed to present this resolution to the Legislature.

This resolution was unanimously passed, and the Committee appointed.

Again, in 1853, it was resolved by the Connecticut Medical Society, in Convention assembled, That after a careful and thorough examination of the Retreat, we are convinced that the cause of suffering humanity, and the best interests of society, demand that the appropriation for the insane poor be increased, in conformity with the recommendation contained in the message of His Excellency the Governor, to the Legislature, at its present session.

With this, all official action of the Medical Society in reference to this Institution, ends; except such as is established by its Act of Incorporation.

It exhibits a steady interest in and a careful watch over the insane of our State, and the provisions made for their accommodation; the uniform policy pursued, always favoring liberal appropriations in their behalf.

And here it will be peculiarly interesting and instructive, though a digression from our subject, to advert, as briefly as may be, to the experience of Ohio and Indiana, States which early, if not at the time of organizing their institutions for the treatment of insanity, adopted the plan of supporting all their insane, excepting only certain specified classes, epileptics, idiots, paralytics, etc., at the public expense.

This might at first seem to be an extravagant and unwarrantable procedure; but when we consider how few there are, who, without very serious embarrassment, can bear the pecuniary burden which is inevitably imposed, when this terrible malady seizes upon the head of a household—and the case is but little less aggravated when it attacks a son or daughter—not only rendering the unhappy sufferer helpless, but often requiring extraordinary care and watchfulness, thereby largely increasing the expense beyond what is usual in ordinary sickness; when it is remembered also, that it is commonly protracted, rarely lasting less than a year, including convalescence, and that it leaves the mind and the bodily functions weak and susceptible, and more than usually liable, as compared with most other maladies, to a relapse; when, too, it is remembered, that in a large majority of cases, it cannot be treated at home, but requires for its cure, and even for the comfortable care of the afflicted, the peculiar accommodations usually found in a public institution; when to all this is added, the depression of mind, and the mortification which too often, though needlessly, succeed restoration to health, and the terrible shock that must almost inevitably ensue, on returning home, to find the earnings, it may be, of long years of toil and economy, all gone, expended in his care at the Asylum, and that the labors of the best years of his life must be again renewed, to recover his lost position, and that under a variety of unfavorable circumstances; when, I say, all these considerations, and many others, perhaps even more saddening, burst upon the mind in all their terrible reality, it cannot be surprising, that in view of them, a humane and enlightened Legislator should be greatly impressed in favor of the Ohio plan.

If, moreover, in reviewing the practical operations of this plan, it is found to work quite as well as on theoretical grounds it might be supposed to do; if it leads to more prompt recourse to hospital treatment and its many attendant benefits to the patient; if it results in earlier cures, and to a larger percentage of them, with all its consequent savings, and other advantages far more important even than these; then will this system have established for itself a strong and convincing claim for approval and support.

Such seems to have been the fact, as the following statements show:—

In his report for 1860, the Superintendent of the Central Ohio Asylum concludes a lengthy reference to the subject, under the four succeeding divisions:

1st. The system is found to result in greater promptness in getting cases into the Asylum, in their early and curative stage.

2d. In a less disposition to remove patients before convalescence is complete—a practice which very generally prevails at all our institutions for the insane, rendering comparatively valueless previous treatment, and too often resulting in incurable insanity.

3d. In the treatment of a greater number of cases in a given period of time, with the same asylum capacity.

4th. In so far as a greater number of recoveries occur in a given time, diminishing the number of cases of insanity in the community, with its attending expense.

In some comments upon the above report, and kindred facts drawn from the same source, the Trustees of the State Lunatic Hospital at Worcester, Mass., in 1862, deduce the following conclusions:

“In Ohio, 73.7 per cent., and in Indiana 70 per cent. of the patients were sent to the hospital within the first year after they were attacked. As a necessary consequence, those States which sent the largest proportion in the early and curable stage, received back the largest proportion in health and power of usefulness, and had the smallest proportion left in confirmed, immovable lunacy, to be supported for life, by their estates or the public treasuries.”

In the three public hospitals of Ohio, they further say, 54.59 per cent. of all that were sent to them, were restored, and 49.40 per cent. remained insane for life.

In Massachusetts, 44.05 per cent. were restored, and 55.95 per cent. remained a life burden upon the people. The proportion of

patients restored, out of all admitted to the hospitals, is 23 per cent. greater in Ohio than in Massachusetts.

The Worcester and Taunton Hospitals have received 8,490 patients, and restored 3,740 to health. If these could have received hospital treatment, at as early a stage of their disease, and as large a proportion been restored, as in Ohio, then 23 per cent., or 860, would have been added to the useful and self-sustaining citizens sent back to the world, and so many taken from the class that has been, or must be, supported and cared for through life.

A sound, liberal, and humane policy then, as well as a true economy, alike enjoin a similar procedure everywhere, as it respects the treatment of the insane—a course in nowise at variance with the enlarged views always maintained, and generally recommended, by this Society.

Another of those subjects which seem to have attracted the attention of the profession of "the olden time," and for many years enlisted their warmest efforts in its behalf, was that of *Temperance*.

Notwithstanding it is asserted that our fathers were abstemious in all things, that they scrupulously obeyed the injunction of scripture, to keep their appetites, or "bodies," under; also that the quality of the liquors at that time drank, was, as compared with those in use at the present day, superior, and, in consequence, far less detrimental to health; yet the fact that this subject, at that early day, engaged the earnest attention of the profession in Convention, must be received as evidence, that the evil consequences arising from the employment of alcoholic beverages, were manifest and pressing.

So long ago as 1812, appears in the Proceedings the following vote, viz.: That Drs. Richard Ely, Jr. and Smith Clark were appointed to take into consideration the ill effects of ardent spirits, and report to the next Convention. The action of this Committee is not found in the Proceedings of the next year, which renders it uncertain whether any report was made by them; yet the following, showing that the vote was before the Convention, furnishes reasonable evidence that their duty was not neglected, and that the action of this Body was in conformity with their recommendation.

Voted, That Drs. Nathan Strong, Jr. and Mason F. Cogswell be a Committee to draft an address to the public, on the ill effects of a free use of ardent spirits.

The brief Proceedings of 1814, also furnish unmistakable evidence that the subject was before the Convention, whose action culminated in the re-appointment of the same Committee, in the terms of the following vote, viz.: That Drs. Nathan Strong, Jr. and Mason F. Cogswell be appointed a Committee, *immediately* to draft an address to the public, through the medium of the Moral Society, on the pernicious and destructive effects of a free use of ardent spirits.

The character and mission of the Moral Society may be inferred from its name; and it is probable that intemperance was one of the vices which it was organized and designed systematically to oppose. A vote passed the year previous, shows that the Medical Society was, at that time, in communication with it, and the intention doubtless was, to unite the efforts of both Societies, in the attempt to suppress, or, at least, to check the advance of this great and probably growing evil.

Whether this Committee, twice appointed, the second time in terms indicating the wish of the Convention that something quite positive and decided should be immediately done, ever complied with the invitation, nowhere appears; and we are left to infer, that they utterly failed to perform the task assigned them, from the fact that at the Convention of 1815, the following vote was passed: That Dr. Wm. Tully be appointed to write a dissertation on the pernicious and destructive effects of ardent spirits, and read to the next Convention.

This appointment also, was repeated in the same words, by vote in 1816. The work assigned to Dr. Tully appears for some reason to have been performed by a substitute. We find in the Proceedings for 1817 voted that the thanks of the Society be presented to Dr. Fowler for his dissertation, read this day, on the deleterious effects of ardent spirits in the hypochondriachal temperament; and that a copy of the same be requested.

Be it as it may, the subject of temperance for several subsequent years, does not seem to have engaged the attention of the Society, until in 1828, the following appears in the Proceedings:

A communication was received by the Convention, from the Rev. Mr. Leavett, agent for the American Society for the Promo-

tion of Temperance, requesting the privilege of addressing the Society.

This request was granted, and subsequently the following was passed :

Resolved, That a Committee of one from a County be appointed, to report what measures are proper to be taken by this Convention, to promote the objects of the American Society for the Promotion of Temperance.

This Committee consisted of Drs. George Sumner, William T. Shelton, J. G. Candee, Archibald Welch, Jonathan Knight, J. Comstock, William H. Cogswell, and H. Woodward.

They promptly reported to the Convention, stating the objects of the above named Society, and that it deserves the countenance of the medical profession. They depict, in truthful and eloquent terms, the terrible evils which intemperance inflicts on its victims, their families and society.

It has brought upon our Country, says the report, a calamity which the statesman will labor to remove—a reproach which the wise and good will earnestly endeavor to wipe away. It gives to diseases a character which they do not naturally possess ; it renders those which are mild, severe ; and those which are severe fatal. No medicine can withstand the progress of maladies which are aggravated by the habitual use of ardent spirits ; no skill can divert them from their fatal termination. It is, therefore, important for us, as we value the character of the medical profession, that we unite our exertions to remove this opprobrium, and as we love our Country, that we labor to subdue this, its most insidious and deadly foe.

In concluding their report, the Committee offer the following resolutions, in every way appropriate in character, and as well worthy of our approval and adoption, as of those for whom they were specially prepared.

1st. That in the opinion of this Convention, the use of ardent spirits is unnecessary in health ; that the habitual use of the same is destructive of private health and public morality ; and that their excessive use is one of the most frequent causes of incurable disease.

2d. That in the opinion of this Convention, although the moderate use of wine, cider, and malt liquors, is not injurious, the

immoderate use of the same articles is, like ardent spirits, injurious to health and good morals.

3d. That in the opinion of this Convention, ardent spirits have no tendency to protect the system from disease; that, on the other hand, they render the system more susceptible of contagion and other causes of disease; consequently, that it is the duty of physicians to abstain entirely from the use of ardent spirits in their intercourse with the sick, and to recommend the same rigid abstinence to nurses and attendants.

4th. That in the opinion of this Convention, the habitual use of ardent spirits not only renders the human system more susceptible of diseases, but increases their violence, and renders them more fatal.

5th. That in the opinion of this Convention, the use of ardent spirits by puerperal and nursing women, has an injurious effect upon their offspring; and is frequently the cause of disease and intemperance, in both the mother and child.

The action of the Society at this time, seems to have produced a powerful effect on the professional mind; for, in the following year, 1829, it was *Resolved*, That this Convention view with satisfaction the happy results of the measures that are in operation for the promotion of temperance; and do appoint three delegates to represent this Convention in the meeting for forming a State Temperance Society, and express their feelings on the subject.

Drs. S. B. Woodward, George Sumner, and H. Gridley, constituted this Committee. At the same Convention, a Committee was also appointed, to enquire into the expediency of establishing an *Asylum for the reformation of Inebriates*, and report to the next Convention. This Committee consisted of Drs. Eli Todd, M. F. Cogswell, S. B. Woodward, George Sumner, and H. Gridley.

The report of the Committee, presented in 1830, opens thus: The propriety of making any provision for inebriates might well be questioned, if intemperance were not a misfortune as well as a crime; if the lover of strong drink, who scatters desolation over the otherwise fair prospects of his household, was not himself the victim of wretchedness, from which he would gladly escape.

After dwelling on the fact, that intemperance is usually asso-

ciated with disease both of body and mind, and that there are few who in their sober moments would not wish to be reclaimed and reinstated in their former position in society, the Committee pertinently inquire, whether the evil is not of so much importance as to demand the corrective aid of government, and the untiring efforts of the Convention for its removal. The institution of Temperance Societies, which are doing so much to prevent the rising generation from falling into this soul-destroying habit, does not reach the case of the confirmed inebriate. He is shunned by all, and is regarded as beyond the reach of moral and restraining agencies; and the question recurs, shall inebriates be permitted to pursue their unhappy career without an effort to restrain and correct them?

This question the Committee consider quite at length, and conclude, "that no measures calculated to check the career of the intemperate will be effectual until we have an *Institution*, furnished with whatever is necessary for their maintenance and employment,—where they shall be subjected to salutary discipline and needful restraint,—shall have no access to intoxicating liquors, and be constantly and usefully employed; where they shall not be contaminated by evil associates, and have no opportunity to exert an unfavorable influence upon others; where they shall receive whatever medical aid is necessary to restore their debilitated constitutions, to relieve their sufferings occasioned by past habits of intemperance, and to eradicate the strong, but artificial propensity which they may have acquired for indulgence in the use of inebriating drink; where, in short, by an enlightened system of physical and moral treatment, they may be reformed; and whence, if reformed, they may be restored, welcome guests of their families, and useful members of society.

An Institution designed to accomplish these results, say the Committee, will secure what is more valuable than money; it will rescue many individuals from destruction, and wipe a foul blot from the fair fame and good character of our State. Nay, more; it will be an honor to our State, and with those other excellent charities which have been established for the restoration of health and reason, for the instruction of mutes, and for the suppression of "wickedness and vice," it will continue to diffuse blessings over our land, long after its founders shall have slept in the dust.

The report, having been read, was accepted by the Convention, and with the following resolutions, adopted.

1st. That in the opinion of this Convention, it is expedient to establish in this State, an Asylum for the reformation of Inebriates.

2d. That Drs. Knight, Simons, and H. Woodward, be a Committee to present this subject to the consideration of the Legislature, and obtain an act of Incorporation.

3d. That a Central Committee of three members be appointed, for the purpose of forming an association, and procuring funds for the establishment of such an asylum—and that said Committee be requested to report their proceedings to the next Convention of this Society.

4th. That there be a Committee of two from each County, to coöperate with the Central Committee, in the prosecution of this object.

Drs. Eli Todd, S. B. Woodward, and George Sumner, constituted the Central Committee, and the names of the County Committees follow.

In conclusion, five hundred copies of the Report, Resolutions, etc., were ordered to be published.

With varying fortunes this benevolent measure was kept for many years before the profession and the public, and final action had upon it in conformity with the following resolution, in 1845, viz.:

Resolved, That while we feel the deepest interest in the moral and physical well-being of the inebriate, and are of the opinion that individual cases not unfrequently occur which would be greatly benefited, if not wholly restored, by the reforming influences which a Hospital for inebriates has it in contemplation to secure, we cannot now recommend that measures be taken for its establishment, but that the subject be, for the present, postponed.

It will be gratifying to every friend of humanity to know, that recently the project has been carried into practical effect in the State of New York; a noble structure, generous in its proportions, having been erected at Binghampton, ample grounds provided, a corps of officers appointed, and patients already admitted and receiving the benefits of the Institution.

Faithful efforts have been made to procure full and definite in-

formation in regard to it for this occasion, but without success.* Its practical working, however, must soon be known, and then it will be easy to estimate the true value of the scheme.†

Another leading measure, brought forward under the auspices of this Society, was introduced in 1825, in a Communication, so called, of Dr. Thomas Hubbard, then its President.

It related to the establishment of a *General Hospital*, and was referred to a Committee, consisting of Drs. S. B. Woodward, Thomas Miner, and Eli Ives. The Committee reported favorably on the suggestion referred to them, and the following vote was thereupon passed :

Voted, That from and after the first day of May, 1826, so much money as may arise from the degree of M. D. conferred on students applying for that honor, which is five dollars on each degree so conferred, and which was ordered to be paid to the Treasurer of this Convention, shall be by him put at interest, and reserved for an hospital fund ; provided that a Hospital, with a fund of \$10,000, be established within five years ; this Hospital to be so located, as best to subserve the interests of the Medical Institution of Yale College.

It is interesting to observe the regard which the Society then felt for the Medical Institution ; making a distinct provision in the bestowal of its funds for the endowment of a Hospital, that it should be so located as best to subserve the interests of the Medical School.

In the following year, 1826, the Convention voted unanimously, says the record, that we highly approve the design to establish a General Hospital in the city of New Haven, and that Drs. Ives, Knight, and Hooker, be a Committee to procure an act of incorporation of a Society to establish the same, and to procure pecuniary aid from the Legislature of the State, and from such other sources as they may think best.

Acting under the authority thus conferred, the Committee made their appeal to the Legislature, which, at the session of the

* Since this Address was delivered, I have received from the Superintendent a very interesting and valuable report of this Institution, which has just entered upon its beneficent Work with every prospect of success.

† An Institution of the same character is about to be erected by the Commissioners of Public Charities, in the city of New York, where its capacity for usefulness will be still further tested.

same year, passed an act, incorporating the "General Hospital Society of Connecticut."

Full provision was made in the act for the organization of the Hospital, and the terms on which patients should be received; but no pecuniary aid, so far as I can ascertain, was granted.

The Proceedings of 1827 contain nothing in reference to the subject; but in 1828, the following vote was passed, viz.: That a Committee of three be appointed to inquire what measures shall be adopted by this Society, to forward the establishment of a General Hospital, and report to this Convention.

The passage of this significant vote unmistakably indicates that something yet interposed to prevent the conducting of the new Hospital into a complete and active existence, and that the subject had been pretty fully considered by some of the leading minds in the profession.

In due time, this Committee, consisting of Drs. S. B. Woodward, William Buel, and George Sumner, made their report to the Convention, concluding with the following vote, which was unanimously passed, viz.: That the five dollars received from each medical degree, already appropriated to the establishment of a General Hospital, be given unreservedly to the General Hospital Society; that the condition of previously raising \$10,000 on the part of the Society be dispensed with, both as respects past and future receipts; and that hereafter five dollars on each medical degree be appropriated to that object, during the pleasure of the Convention.

This appropriation appears to have been continued for eight years. An arrangement was also made between the State Society and the Medical College, by which the Medical Society, for six years, relinquished the right of appointing Gratuitous Students; and in return the Professors in the Medical College gave *one-tenth of their fees* for tickets to the General Hospital for the same period. There was thus formed an intimate union between the State Medical Society, the Medical College, and the General Hospital. For the due regulation of these mutual obligations it was provided in the Charter of the General Hospital, that the President and Fellows of the Connecticut Medical Society shall be ex-officio members of the Hospital Society.

It was then *Voted*, That a Committee of three be appointed to

meet a Committee of the Legislature, and state the views and wishes of the Convention on the subject of a General Hospital.

This Committee consisted of Drs. S. B. Woodward, John S. Peters, and William Buel, who, says the record, fulfilled the charge assigned them.

Precisely what the nature of the conference was, does not appear, but that the subject of funds was a leading topic is highly probable; and it is equally certain that the Committee failed in securing from the Legislature a Hospital appropriation at that time.

Feeling, however, the indispensable necessity of raising money to purchase a suitable site, and to erect upon it a proper Hospital structure, the Convention of the ensuing year passed the following:

Resolved, That the Medical Convention do cheerfully recommend Dr. John Skinner, Agent of the General Hospital Society, to the attention of the benevolent people of the State, and do cordially approve of the establishment of a General Hospital in the city of New Haven.

Resolved, That a Committee of three be appointed to furnish the Agent of the General Hospital Society with a circular, stating the objects of the Society; and in behalf of this Convention recommend the Institution to the benevolent people of this State.

Drs. Goodsell, Knight, and Hooker constituted this Committee.

That this appeal of the Medical Society, united to the faithful services of the Agent, were successful, is shown in the fact that not long after, a fine site and ample grounds were purchased, and a commodious Hospital structure, of liberal proportions, was erected thereon; thus completing another noble monument to the humane, well-directed, and persevering efforts of the Medical Society.

Passing over many acts of this Body, worthy of special notice, which occurred during the interval, all of which show, with unmistakable clearness, that the same spirit of benevolence, throughout this long period, continued to characterize its more prominent movements, we pass on to the year 1855, when the subject of some suitable accommodations for the *Insane Convicts*, always to be found in our jails and State Penitentiary, as well as those who are acquitted of crime on account of insanity, was brought to the notice of the Convention by the delegates from Hartford County.

After a full presentation of the subject, and a free interchange of views, the following preamble and resolution were passed :

WHEREAS, It appears to this Society, from the statements made to it to-day, and from the many published reports of former Wardens and Physicians of the State Prison, that insane convicts, in considerable numbers, are always to be found there, for whose comfort and recovery no suitable accommodations are furnished, or means employed ; and believing, as we do, that the interests of humanity and the State are both concerned in a change, having for its object the recovery, if possible, but, at all events, the better care of the class above named ; therefore

Resolved, That a Committee of one from a County be appointed to bring this subject before the Legislature at its present session, and earnestly endeavor to procure such action in relation to it, on the part of this Honorable Body, as best promises to secure the end contemplated.

This Committee consisted of Drs. Jonathan Knight, Simmons, Peters, Bennet, Casey, Dean, and Hunt.

Says the Secretary, in a note appended to the Proceedings of that year, "The object contemplated in the foregoing resolution was, early in the session, brought by petition before the Legislature, and referred to the Committee on 'State Humane Institutions.'"

The report of this Committee was able and convincing—making clear to all unprejudiced minds the great importance of the measure committed to them.

In this report appear extracts from the reports of the successive Wardens, proving that the subject had long been before their minds, and their earnest and repeated appeals in behalf of this suffering class, furnish conclusive evidence of their views in regard to the importance of instituting some measure for their relief. First and last, every Warden then living was consulted, and several of the best informed of their Deputies, in relation to the matter, and with a single exception, there was but one opinion expressed in regard to it, and that unqualifiedly in its favor. The question was argued at some length in one of Capt. Pilsbury's reports, and often referred to in others, sustaining both by facts and conclusive reasonings upon them, the pressing necessity of some action for the relief of this suffering and peculiarly helpless class. Capt.

Johnson and the then Acting Warden both appeared before the Committee, and sustained by further facts and concurrent opinions, the views of Capt. Pilsbury.

The opinions of the highly respectable physicians, says the report, who have, at different times, had the medical charge of the Prison, sustain in their reports, and one of them before us, the views which are at this time, and have always been, entertained by the successive Wardens.

A large and corresponding European experience is also embodied in this report. Indeed, nothing is omitted required to establish and confirm the opinions expressed by this Committee. In brief, the action of the Legislature resulted in its making an appropriation of \$1,500 for obtaining plans and specifications for a structure suited to supply the wants of the Criminal Insane of this State; with estimates of cost, the purchase of land, if required, etc., etc., the whole to be done under the direction of a Committee then appointed, who were to report at the next session of the Legislature.

The successive steps by which this eminently humane measure was conducted to a conclusion, are set forth at length in a report made to this Convention at its session in 1858, and published in its Proceedings.

A memorial to the Legislature, reiterating in earnest terms and with cogent facts and reasonings, the desire of this Body, that the Department for Insane Convicts, *which at that time had been long completed but never occupied*, might be opened for their use, was passed in Convention in 1859, and referred to a Committee to further, as far as possible, the objects of the memorial.

The duties of this Committee were faithfully discharged, but were without avail—the building designed for the class referred to, says the Secretary in a note, being ordered to be converted into a workshop, and the Department thereby abolished without trial.

Not satisfied exactly with its own doings, the same Legislature appointed a Committee of three to reconsider the matter and report to the next session.

This Committee, also, as all the preceding ones had done, attended faithfully to the duties assigned them, and reported at the next session in favor of the revival of the original plan, as

greatly to be preferred to any that had been suggested or had occurred to them.

This report met the fate of its predecessors, and there the matter rests to-day; those for whom it was designed still languishing and dying in prison cells, without the possibility of relief or cure. Should such a state of things be permitted to endure? Is it not, so long as it lasts, a foul blot upon the otherwise fair fame of our State?

It will doubtless be extremely gratifying to you to know, that, at the same time that efforts were making to meliorate the condition of the Criminal Insane of this State, the Legislature of New York was also agitating the same subject, and with a liberality and humanity which does it infinite honor, decided early to make provision for this suffering class.

By a singular coincidence the subject was first agitated in the same year, 1855, in both States; and the Institution for the State of New York, erected at a cost of about \$100,000, including grounds, was opened and occupied in 1859. Though designed for only sixty-four patients, it has long been crowded; having in 1862, eighty-one, and in 1863 its enlargement was recommended by the State Prison Inspectors. Its results, in every respect, realize the anticipations of its most sanguine friends, and is proving an unspeakable blessing to the wretched and forlorn class for whose benefit it was erected.

I have thus passed in review before you, gentlemen, with a brief historical sketch of each, a list of some of the noble Institutions erected among us through the instrumentality, in part, of this Society.

They constitute a part, the most conspicuous part, it must be admitted, yet but a part of the labors of three generations of men, and are chiefly the work of the fathers; at least of men who have passed quite beyond the active stage of life, and are a worthy record of well directed, assiduous, manly toil.

Though these noble men, truly benefactors of their race, rest from their labors, their Works survive, and will continue to bless the coming generations as they have the past, and to cast a halo of glory around the memory of their projectors.

You will all readily admit—and the fact should be distinctly understood—that none of these undertakings would have been offered for the public approval and adoption, certainly not at the

successive periods which mark their origin, had they not been taken in hand, their value and importance eloquently set forth, and the methods pointed out, best calculated to embody these noble thoughts, by this Society. Several of them, even at the period of their completion, were many years in advance of the age which gave them birth; yet their successful operation, either in our own State or elsewhere, demonstrates the practical soundness of the views which happily prevailed.

The responsibilities, not less than the benefits, resulting from these honorable labors, belong to us, who are, in good faith, required to see that they continue to fulfill their destined purposes in full measure, and also that other public wants are in like manner provided for, as the exigencies of society may require.

The present is a time of upheaval and overturning among many of the long established Institutions of the States; and it would be strange, indeed, if the thoughtful activities of a great and vigorous organization like this, did not find much on which to exercise its legitimate efforts.

It should, for its own sake, and at all times, have on hand for united, energetic action, some great project for the furtherance of man's welfare—especially that of suffering humanity.

The founding of hospitals and providing them with all the means and appliances required, for their satisfactory operation, and taking the entire professional charge of them,—superintending our schools for the acquisition of professional knowledge, and pressing forward as fast as circumstances admit, the requisitions for practice, or looking after these receptacles of human woe, as well as of human depravity, to be found in our alms-houses, jails, and penitentiaries; to improve, so far as it may properly be done, their methods of management, and to be at all times prepared to offer for their adoption the best results of hygiene; and, finally, to improve our every opportunity for personal and associate advancement in our chosen calling, by means of which we can best fulfill our great mission to man; these constitute, in general, and at all times, the appropriate work of each and every member of this Society.

Then, as time rolls on, and with watchful eye, we discover some special door opened by Providence for the benefit of the race, into which it may be our appropriate province to enter, we shall be fully

prepared, intelligently, with alacrity and with every promise of success, to undertake the labors which it may involve.

Thus, in the three succeeding generations, shall we be able to make up for ourselves and our successors, a record which we may hope not only will compare favorably with, but to stand out in still nobler proportions even, than that we have been contemplating, before the approving gaze of mankind.

ARTICLE VII.

MOTHERS OF NEW ENGLAND.

Being the Annual Dissertation read before the Convention, May 25th, 1865

BY JOHN E. BLAKE, M. D., OF MIDDLETOWN.

It has always been deemed fitting that youth should seek knowledge of age, and that young and ardent speculation should learn to carefully shape its theories, and cautiously draw its conclusions at the feet of riper judgment and experience. With this view I venture to present for your consideration to-day, some observations on the "Mothers of New England," and to call your attention to some defects in their early education and training. In respect to the propriety of introducing the subject at this time, am I wrong in thinking those in error, who would limit the sphere of our duties to the care and treatment of disease only, to the exclusion of considerations affecting the general physical well-being of the race? To the noble, all-embracing charity expressed in the oft-quoted words of Terence, "*Homo sum, humani nihilo a me alienum puto*," we, I think, of our profession, should lay especial claim, and consider nothing as unworthy our attention which concerns the welfare of our fellow-men. Your published medical communications, and reports, are evidence that your views of our duties to society are wide and noble. Among others the annual address, delivered by your President, on "Life," in 1861, the Dissertation read the same year on Hereditary Predisposition, and that of the preceding on Hygiene, treat with finished rhetoric and sound philosophy the great subject of the physical condition of the human race, and of the influences hostile to its healthful development. In respect to these influences and their effects, Dr. Woodward, in the address on "Life," alluded to, says, "But it is painful to pursue, in detail, the causes of the physical deterioration which we all experience and observe. The

tables of mortality, the multitude of early deaths, the rare instances of longevity, and the long list of human maladies, indicate a sad decline from the strength and endurance of the early progenitors of the race." Sad, indeed! the study of such records, "painful," in very truth, the investigation of the causes of a deterioration, the existence of which can be so positively affirmed, and the statement pass (as it is to be feared it must) unchallenged. The writer speaks, it is true, of the whole human family, but is not the degeneration he deplores very observable here in New England, in our own especial field of duty, and to particularize still more, sadly noticeable in women? It has been asserted, and, I think, it will be conceded with truth, "that upon the constitution and sanitary condition of the mother depends, in a great degree, the stamina of the offspring." If this be the case, and if, besides, woman be capable of exerting the moral influence upon society at large, upon People, Church, and State, that it could be shown she can and ought to exert, would it not seem, that all efforts to elevate her, both physically and mentally, must have a most powerful effect for good upon the whole race. Let us then consider the present sanitary condition of the Anglo-Saxon women of New England, who, as the descendants of the early colonists, have been long exposed to the action of the deteriorating influences we would investigate. Do we not find it far, very far, from being what it should be, and the health standard of the mothers of the race among us very low? There is much truth in the humorous remark, attributed by some to one of our profession, "that we shall do well to take good care of the grandmothers we have left, as we shall never see any more." The stamp of premature decay seems to be upon the sex, and seldom indeed do we now see any who realize our idea of the comely matrons of days gone by, in whom the well developed beauty of maturity often surpassed the promise of girlhood. Good health invested even their old age with a certain charm, and there are some still living of those venerable dames, "come down to us from a former generation," whose cheeks "are like the rose in the snow," and whose eyes can still sparkle with something of their former youthful vivacity.

The education of women some generations since, was calculated to make good daughters, good wives, and good mothers. The word education is not here used in a limited sense, but by it is

intended both the training of the physical, the instruction of the mental, and the culture of the moral and religious nature. In this sense a *well educated* wife was once a real helpmate for any man. The household duties which her early training had never taught her to despise, health and strength enabled her to perform with ease, nor did she find in each prospect of an increase of family cares, through addition to its numbers, fresh occasion of terror. The cares were increased, it is true, but there were more to share them, and under the kind but pure discipline of the mother, the daughters were taught to lighten those cares, the sons to assist the father. It was once deemed a noble life work for a wife and mother to govern and direct a well ordered household, by industry and thrift to add to its store, and, above all, to exercise a constant supervision over her children, to the end that the "*mens sana in corpore sano*" should be realized in them, that they should have good sound minds in sound bodies, that they should grow up fit members of the order of "nature's nobility," healthy, hearty, honest, God fearing men and women. To do this (I say) was thought a noble work, and nobly have some mothers in the land done it, not only bringing up well what we should now consider a large family of children, but being able, in the midst of the business of life, to add to the plain, solid education of themselves, and their children, both graces and accomplishments. That the mothers of to-day are so seldom able to do as much, may be due, in a great measure, to a faulty system of early education, by which not only is the body weakened, but the moral vision impaired; by this is the tendency fostered which shows itself even more strongly in our young women, than our young men, to a rapid, precocious development of the bodily and mental powers, followed often, as might be expected, by a rapid decline.

By this our young women are physically unfitted for the work of life, just at the time when the hardest of it comes upon them, when new social relations have been formed, when each day brings fresh cares, anxieties and difficulties, with which the failing health and strength of too many feeble women is ill calculated to contend. How many such an one, when ready to sink under the accumulation of her cares, yet feeling that for the sake of her home, her husband, her children, she must endure unto the end; how many such an one, (I say,) when looking back, as in the pleasant picture of a dream, to the dear old home of her child-

hood, has shed bitter tears at the thought of how ill the education of that childhood fitted her for life's work, and grieved, even over that mistaken parental ambition, which taught her everything but that which she has since needed to know, and over that fondness by which, (with blinded judgment,) they permitted her health and strength to be enervated from the cradle up. Still "she will go on," she will at least "try to fulfill her part in life," she will not be vanquished by physical weakness, and still she does go on, till nothing at last remains active, in this wreck of what might, and ought to have been, a happy, healthy mother, but the indomitable, persevering spirit of the race,—a spirit that can rise superior to physical infirmity; that can look calmly, patiently and bravely, upon misfortune and difficulty; that spirit which the sons and daughters of this land have shown before all the world, for four long years. This spirit still impels the enfeebled woman to exertion, until at last she can go no further. Do you recognize the truth of a picture too common among us? Do not the records of your practice furnish you with many such examples, and have you not even now under your observation, some of these heroines, that, unknown to fame, are patiently living out their martyrdom?

Why should this thing be? What is the cause of this precocity and premature decay? Why should there be such a difference in the health standard of women of the same age, of the same race of the mothers of New and Old England? a difference in favor of the latter so great, that we may best measure by the comparison the present physical degeneration of the former, as one who being borne down the current of a silent stream, deeming he moves but slowly, can best appreciate the rapidity of his descent, when turning round toward the point of his departure, he sees it losing itself in the distance.

I know that this may be doubted, that by statistics drawn from the population at large, which in England is often crowded into narrow, unhealthful limits, one might persuade one's self that this difference does not exist. I do not in this paper refer to the health standard in either country under conditions so exceptional and unfavorable, but rather to those in whose occupations and surroundings there would seem to be nothing incompatible with good health, but even much to favor it as in the inhabitants of the country, and the farming population especially.

The English mother of this class, at about thirty years of age, has attained the perfect maturity of her physical being, and for nearly another decade, may exhibit no evidence of its decline. She often retains for many years after reaching middle life, a woman's beauty, even though she have long lost the attractions of youth. It may not be the beauty of form, or feature, that she may never have had at any period of her life; it is the beauty of good health, which all may hope to have in some degree. The New England girl under twenty years of age, has quite commonly all the external appearances of this, and so far as mere beauty of form and features are concerned, is admitted, I believe, to be equal, if not superior, to the daughters of any other country. Why, then, should this fair promise prove delusive, and furnish us so many examples of broken health, and constitutions shattered before the meridian of life? Why so many wrecks upon the shore, so many pale and care-worn faces, so many brave hearts in feeble bodies fighting the battles of life?

Those there be that account for this by saying, "that the English race is not yet fully acclimated here, and that "in time, a few generations more, all will be well." Others who resign themselves to the condition of things, and believe that precocity, followed by premature decay in woman, is inevitable, under the influence of our dry and stimulating climate. "The same thing is observed," they say, "in other races, and is true of other countries." I grant this, but I cannot do so as a final acceptance of an irremediable degeneration, of such a wide difference between the "mothers of the race" here, and their sisters of the British Isles. If it be true that our climate is more stimulating, that it disposes toward a precocious and ill sustained physical development, so much the more reason that our system of education (using the word in the broad sense I would give it) should repress, not foster, precocity; so much the more reason, that we should combat this evil tendency in every way. I am glad to say that efforts have already been made to this end, and to give woman a chance to mingle in those healthful out of door sports and exercises, from which she has been to a great extent debarred. Without presuming here to answer the vexed question so often asked of medical men, "Do you approve of riding on horseback, and skating, as an exercise for girls?" I think it may be safely asserted, that any amusement which leads them to take exercise in the open air, should

not be discouraged upon slight grounds. It will be impossible here to treat at length of all the defects in our system of education; that they exist, I believe has long been evident to you all. Permit me to advert to some points connected with the details of food for the body, and mental instruction for the mind, often, I fear, subjects of grave error. A fragility of constitution in the mother, frequently transmitted to her offspring, unfits her for giving it its natural and proper nourishment. The defect in this may be one of quantity, quality, or both. Then begins a series of dietetic errors, which are often continued, and exert a bad influence upon the constitution through life. I have often wondered that such mistakes should be made in the diet of young children, and that those whose ideas as to the rearing of the young of the inferior animals are so just and true, should utterly fail to comprehend the necessities of man. They will admit that mild and unstimulating articles of food, of so bland and unirritating a quality that they may be freely given, are best as a diet for most young animals, yet in contemplating the moral and intellectual capabilities of an infant, they seem to lose sight of his animal nature. A proper supply of well selected, well prepared food, is almost as essential to health as pure air, and from the more delicate organization of females, more important to them than to men. I am satisfied that our whole dietetic system is faulty; that it is fearfully wasteful of the good gifts of Providence is generally conceded, and any one who looks into the matter, will be as much struck with the incongruous, indigestible character of our meals, as with the unhealthful rapidity with which they are too often dispatched. I say this, claiming, nevertheless, that the tables of many families among us, and of many of our hotels, are inferior to none, both as to the selection and preparation of their viands, but I would still contend, that the diet of our people at large is very far from being what it should be.

Improvement, however, is being made in this respect also, and the importance of a really good, generous diet for the growth of healthy mothers, may be soon as fully appreciated, as that of air and exercise. We even now hear of schools, where instruction is given in the "art of cooking," an art which, if better understood among us, would save us not only money, but much dyspeptic misery. Were the demands of the body for proper, easily assimilated food, better supplied during their youth, our young girls

would be better able to combat the deteriorating influence of our present system of mental education for them. When we take into consideration the severe drain which excited and protracted mental exertion makes upon the bodily powers, the extent to which the active, overstimulated mind gnaws into the very heart of an enfeebled body, chained to earth, perhaps, by the bonds of inherited and acquired disease, can we wonder that so many girls lay the foundation of a long train of nervous maladies at school, whose effect they are to bitterly realize in after life? It is impossible to speak too strongly upon this point. They have generally more active minds than boys; with them the emotional element is always a stronger mainspring of action than the reflective; and their ambition to study and excel is strong enough, without bringing to bear upon it the stimuli of the "class system," and all those incentives to mental exertion, which, borrowed from our universities, may be sometimes necessary for the sluggish natures of boys, but are rarely proper for the opposite sex.

Consider for a moment, gentlemen, this great, and, I am sorry to say, growing evil. Think that not only here, but all over this land, there are schools for girls, within whose walls the spirit of emulation is favored to "the top of its bent," and pushed to the most destructive ultimate consequences. Study is added to study. Classical and scientific difficulties of every sort, are with eager haste thrust forward by teachers, to be grappled with and overcome by equally eager aspirants for distinction. Mental exertion, beyond the regulated hours of school, is not repressed as it should be with judicious hand, but encouraged and stimulated in every way; and then she who, at the end, wins the prize of all this unnatural toil, is held up as an object of admiration and imitation; no matter whether her acquirements are likely to be of use for the duties of after life; no matter whether their attainment has involved a total inability to fulfill them, that upon her cheek burns the hectic, baleful fire of premature decay, that she is but a wreck of her former self, one whose whole mental and physical vitality has been exhausted, by this most injudicious, hasty preparation for a strife yet to come. Is this exaggerating? Will you deem this too a sketch of fancy? Consult the long list of studies of many "Young Ladies' Schools!" attend an "Annual Examination!" Note, among the anxious faces before you, the number that bear traces of mental over exertion; scrutinize with professional

eye the evidences of an unnatural mental and physical precocity, carrying with it the elements of decay. How many are there that shall "faint by the way side," and to whom "death will bring surcease of toil ere half their course be run." I do not deem this exaggerated; I think it fortunate indeed for many of those who have been subjected to such a system, if they be not called upon to bear the heavier burdens of life, if affluence permit them to place many upon the shoulders of others. No! Classical lore, the legends of past centuries, the story of past years, are pleasant, useful additions to our stock of knowledge, but if studied at the sacrifice of health, or to the exclusion and neglect of attention to the common-place, every day working knowledge which all may come sorely to need, I cannot regard them as essential. Any young woman in this land may look forward to the opportunity of dignifying the highest position within reach of her sex, and that position should be second to none in real influence. Far be it from me to deny her the advantages of a "finished education," so called, but let her not dream that such an education, in the true sense of the term, can be attained by the unnatural over mental exertion of a few short years, nor that she has any right, in the pursuit of it, to neglect her duties as a daughter at home, even though urged to such a course by her parents themselves. By "Line upon line, precept upon precept," must a true womanly education be formed, the lessons of life's experience added to the acquirements of youth, but leaving no duty overlooked, no law of her mental and physical well being knowingly violated. One question more. Putting out of the question the influence of diet, air, exercise, and education, how many shattered constitutions are due to a flagrant criminal violation of the first laws of a woman's physical well being? Sad indeed must be our moral degeneracy, if we can regard with indifference the alarming increase of what may be termed semi-legalized infanticide among us. Aside from the political consequences involved by one race, religion, and people, systematically checking its own natural increase in a country recognizing almost universal suffrage, the effect upon the health of mothers must be dreadful. How dreadful this effect really is, you, of all others, best know. Still I will not dwell upon this great evil, any more than upon many other defects in our present social system and education, upon which much might be written. I must crave your indulgence for the imper-

fect manner in which some few have been treated. I offer nothing as proven, settled and justified by long carefully elaborated columns of statistical figures. I have then to ask that my statements shall be regarded, to a certain extent, as interrogations, or promises rather, which, if found to be true, I must leave to older and abler logical architects than myself, content, if they shall be able to make use of them in forming a perfect and solid argument, whose arch shall be an opening upon the path of Reform. Before a different audience than the one I have the honor to address, I should hardly venture to ask such questions, or hazard such remarks. They would probably be regarded as visionary, exaggerated, and uncalled for. With your verdict as to their present propriety I am content, for I feel assured that fallacious, superficial appearances of public health, do not deceive you, that you fully appreciate the importance of watching every symptom of its decline, that you know well, that both disease and crime shun the light, and that you are the almost daily recipients of confessions of bodily and mental misery, from many a one, whom the world deems both well and happy, and I believe you feel that everything should be done to check the growing corruptions of our social life, to foster a right public sentiment, and to give our youth of both sexes, but especially our girls, the advantages of a truly good education, and to surround them with healthful influences.

Born amid such surroundings, and the product of such an education, were the mothers of many of the great men who dignify our history. From those mothers they early learned to love honor and truth, to detest deceit and false pretence, and with undaunted front to face any danger in the cause of right and justice. Home influence, whose silent but strong force can never be entirely subdued, was once most powerful in our midst, and for good, and may not imagination picture the action of some subtle agent, bringing out clear and distinct upon every glorious page of our country's history, between every line of the record, whether written by the pen of the statesman or scholar, or carved with the soldier's sword, the traces of woman's hand, the words of encouragement, of counsel, of sympathy, the influence of the mother, the wife, and the sister. That influence woman should exert now. From every home it should go forth, to

menace with its glittering sword of purity and truth, the encroachments of vice and luxury. Never have we needed it more.

Standing, as we do, upon the threshold of a new National life, looking forward to a glorious future, it becomes us to see to it well that the "rod of Empire" is swayed by no feeble or unworthy hands. If through violation of physical and moral laws, bringing degeneration and effeminacy upon the race, the sceptre shall slip from our grasp, believe me, God will not hold us guiltless if we have spoken no word of warning.

ARTICLE VIII.

Prophylaxis, as it relates to Phthisis Pulmonalis.

PRÆCUPARE POTIUS QUAM SANARE.

RUSSELL PRIZE ESSAY.

BY GEORGE W. BURKE, M. D., OF MIDDLETOWN.

AMONG the many agencies that have tended to the improvement of our knowledge of disease and its correct treatment, the science of chemistry and the revelations of the microscope hold an important place. By the former, the elements which enter into the construction of the different parts of the human system, are defined with the greatest exactness, and the quantity of those elements, as they pass from the body in the various excretions, are registered with a minuteness and accuracy which leave no room for doubt. By the latter, all the irregular forms of pathological development, as well as the molecular arrangement of the healthy tissues, are brought to view, and the changes produced by disease in its different stages, submitted to the most careful ocular inspection. That these agencies should agree in the evidence they furnish, is perhaps not remarkable, seeing the perfection to which both of them have arrived, and the numerous tests which have been made of their accuracy and power. The application of these results to the treatment of disease has constituted one of the greatest triumphs of medicine, and in many instances has established a rational and successful practice for one which had been mostly empirical. And yet, with all that has been done, we seem to be only on the threshold of our investigations; the suffering of humanity, and our frequent failures to afford relief, demand the most laborious research and extended inquiry. While much has been accomplished in shortening the duration of disease, in the alleviation of pain during surgical operations, and in the recovery

of some of the most hopeless cases, comparatively little progress has been made in preventing many of our most formidable maladies,—foremost among which stands tubercular consumption.

When we consider that according to mortuary statistics, the number of deaths from this disease is greater than from any other, and in some sections reaches one-fifth of the aggregate, it will be seen that any course that furnishes a reasonable hope of its prevention or arrest in its early stages, will be an essential improvement in our practice, and a lasting benefit to mankind.

What is phthisis?

In the discussion of this difficult subject it is highly important that we commence with well defined views of the true nature of this affection, that our deductions may bear the impress of rationality, and stand the final and sure test of experience. Whatever opinions we may entertain as to its hereditary transmission, we must all admit that it is a disease of faulty assimilation, and imperfect development, which continually tends to its own reproduction; and that, when once fairly seated in the system, having passed on to the stage of softening and expectoration, death is the rule, and recovery only the exception.

The symptoms of this disease have generally been described by authors as slight aching pains in some part of the chest, attended with a short, dry cough, increased on muscular exertion,—shortness and uneasiness of respiration with a sense of tightness, and inability to make a deep inspiration. After these become more conspicuous, febrile irritation in the evening, with greater frequency of pulse, night-sweats and profuse expectoration, with occasional hemorrhage, follow. As one of the consequences of the foregoing train of symptoms, emaciation is mentioned, which becomes more evident as the cough progresses, and finally, colliquative diarrhea increases the waste beyond the possibility of repair.

But this assemblage and order of symptoms is not alike in all cases. Where the strumous diathesis is hereditary and strongly marked, this description may be sufficiently correct, but there is a large class, and perhaps a majority, where the first external evidence of disease is emaciation or slight loss of flesh, preceding the cough or unpleasant feelings in the chest, and indicative of that retrograde metamorphosis which is the essential element of phthisis. The composition of the blood, from which all the tissues

derive the material necessary for their repair, is changed, and the products of digestion are no longer carried on to the reproduction of healthy organized cells, but left in an imperfect state to become sources of irritation in the most delicate structures of the system. But behind the loss of flesh and antecedent to all these symptoms lie the true causes, which a careful examination into the previous history of the patient will generally detect. The circumstances of life which produce the greatest anxiety,—excessive mental labor or indulgence of the passions; deficiency of sleep and proper food—indeed, all those causes which tend to depression of the nervous system, may be cited as precedent in these cases to the physical signs of consumption. An analysis of the urine in this early stage shows an increased amount of phosphates, the products of wasted nervous tissue, and the debility and languor which accompany the loss of flesh, add further evidence of the extent of this unrepaid waste.

There would then seem to be two classes of subjects to this fatal disease:—the one, where a scrofulous taint, derived from the parent, already exists, which needs only the slightest cause to ensure its development, and which the highest and most rational caution can hardly prevent;—the other, where a combination of depressing agencies, operating primarily on the nervous system, bring down the patient to that state where tuberculous matter is deposited, and under the same influences travels on to its legitimate and necessary termination. Additional evidence of the correctness of this classification is found in the fact, that inasmuch as many phthisical patients die at an early age unmarried, much phthisis must spring up in each generation, independent of parentage. It also follows, that if the agencies before mentioned can bring a system ordinarily healthy into a cachectic state, so that tubercle will be deposited, the same agencies will *à fortiori*, produce the most rapid effects upon one previously predisposed to the disease.

In view of these facts, it would seem to be a rational conclusion that phthisis pulmonalis should be regarded as a systemic rather than a local disease, and that debility and vital declension exist before any local symptoms are sufficiently manifest to give it a character and a name.

What occupations furnish the greatest number of cases of phthisis?

For the knowledge we have on this part of our subject, we are dependent on statistics, prepared at various hospitals, and returns made to registrars appointed for that purpose. And while referring to these, we may as well say that any *direct* deductions drawn from the numbers there presented, are at the best very fallacious. Great discrepancies, for instance, exist as to the relative number of males and females affected with this disease, in some place the females, and in others the males predominating. No allowance seems to be made for the character of the population where these hospitals are located, or the comparative freedom with which men and women would make application for admission. So with regard to the returns in the hands of the registrars, there is a great liability to error. In the first place, it is impossible to get from attending physicians full returns of deaths; in the next place, a part of the returns are made by ignorant quacks, whose correctness of diagnosis may well be doubted; and lastly, many cases of membranous disease of the pulmonary apparatus are returned and classed under the general head of consumption, thus making the summary anything but reliable.

Dr. Pollock, whose opportunities for investigating this subject have been very extensive, has carefully tabulated the results of six hundred and fifty-two cases under his supervision at the "Hospital for Consumption and Diseases of the Chest," in the course of which it appears that ninety-five cases occurred in servants, forty-five in laborers, four in hairdressers, and one in a butcher. When we consider that the number of persons engaged as servants and laborers far exceeds that of hairdressers and butchers, it is evident that no *direct* conclusion as to the comparative immunity of the latter classes can be drawn from these figures. But in comparing the number of bakers with that of butchers, a very significant fact is obtained. While in any given community the number engaged in the former occupation is actually less than that of the latter, six bakers appear in this table, and only one butcher. This ratio is theoretically correct, for while bakers are engaged in a dusty in-door occupation, subjected at times to great artificial heat, in comparatively close rooms, and by their very business led to use chiefly a farinaceous diet, butchers are remarkably supplied with animal food, their shops are more open, their occupation requires daily driving about, whatever the weather may be; and under the influence of this highly stimula-

ted nutrition, they are singularly exempt from phthisis or any chronic disease. Dr. Copeland says, "he would advise any one threatened with phthisis to become a butcher;" and this opinion is not strange, when we consider the totally opposite conditions of emaciation and obesity that characterize the two.

After all, the great fact appears that in-door and sedentary occupations furnish more than one half of the cases of phthisis, and that as far as the physical system is concerned, two causes operate strongly in the production of this disease,—want of fresh air, and diminution of the nutritive and excreting processes, by which the blood is left in a comparatively stagnant condition, containing much of the *débris* of the system, which, under a highly stimulated nutrition, would be thrown off.

This condition of the blood is the preliminary stage of phthisis, in which the tuberculous element exists in the circulation, not having yet been separated in an appreciable form. It is the period in which phthisis is in a latent state, in which it is essentially a systemic disease, of which tubercle is the effect and not the cause. It is the period when the disease is most amenable to treatment; when, if the patient acts wisely, the downward tendencies of the system may be checked, and a favorable result secured.

What remedies have been most successful in the treatment of this disease?

In order to have the most satisfactory data for our conclusions with regard to the prevention of phthisis, or its arrest in the preliminary stage, it will be necessary to examine briefly some of the principal remedies that have at times been successful in the treatment of the more advanced stage, and the method of their operation. Passing by the great majority of medicinal agents which have been recommended, and which, for the most part, can only be regarded as palliative, the two which have met with the greatest favor, and have been used the most extensively, are cod-liver oil and phosphorus, in a variety of compounds, under the name of the hypophosphites. Each of these remedies have been used with greater or less success in the treatment of phthisis, and numerous well-authenticated cases of complete recovery, in which one or both of these agents bore a conspicuous part, are now on record, while an additional number of cases of membranous disease have been included to swell the list, and add to their merits.

Until the introduction of cod-liver oil, phthisis was often treated as a sthenic disease, and the opinions of Eberle on this subject may be adduced as illustrative of the general theory and practice that prevailed at that period. In his article on Phthisis Pulmonalis, he says: "In the incipient stage of every variety of pulmonary consumption, our constant object should be to counteract the inflammatory diathesis of the system, and to remove all sources of irritation. *The regimen must be strictly antiphlogistic.* In general, vegetable and farinaceous diet, with milk, is the only proper nourishment for a patient laboring under incipient phthisis." Farther on, he advises bleeding and tartar emetic as appropriate remedies, and this too when he states that the depressing passions, and copious losses of blood, are among the ordinary exciting causes of the disease.

The cod-liver oil had been for a long time used by the physicians of Northern Germany as a popular remedy in strumous affections, and was introduced into England about the commencement of the present century. It was not, however, until about thirty years since, that its decided efficacy in scrofula led to its employment in phthisis, soon after which it met with increasing favor, until it came to be regarded as a specific for this much dreaded and hitherto intractable disease. In 1849, Dr. C. J. B. Williams, of London, tells us that he "has taken notes of two hundred and thirty-four cases of phthisis, in which he has prescribed cod-liver oil, and that in two hundred and six of these cases its use has been followed by unequivocal improvement, varying in degree from the mitigation of distressing symptoms, up to an apparently complete restoration to health." In his conclusion, he states, "as the result of extensive experience, confirmed by a rational consideration of its mode of action, that the pure fresh oil from the liver of the cod is more beneficial in the treatment of pulmonary consumption, than any agent, medicinal, dietetic, or regimenal, that has yet been employed." In a report of five hundred and forty-two cases treated by this remedy at the Brompton Hospital, it is stated that in eighteen per cent. the disease was entirely arrested, in sixty-three per cent. the symptoms improved, and in nineteen per cent. the disease went on unchecked; while in considering the *whole* number treated in this Hospital, it was arrested in only five per cent., showing conclusively the great value of the oil in the treatment of this disease.

The evidence in favor of the hypophosphites is of the same remarkable character, and although the most diverse opinions with regard to their effects have been expressed by different practitioners, the fact of their positive agency in the arrest of phthisis, is indisputable. This diversity of opinion, says Taylor, of Liverpool, "mainly depends on the constitution of the salt used,—whether a hypophosphite, or a phosphite, or a phosphate more or less combined with a carbonate." Not having been prepared with scientific skill, or a due regard to their chemical tendencies, they are suffered to pass into the ultimate state of oxidation in which they cannot supply the want of nervous power in the system. To insure a beneficial effect, a pure hypophosphite should be used, so combined, that the ulterior changes may take place after the administration of the medicine, and the specific influence of the phosphorus upon the nervous tissue be secured. Churchill, to whom we are indebted for the most extensive observations on the action of these remedies, insists strongly on the necessity of their scientific preparation, and protests against the indiscriminate and empirical use of any or all of these compounds in the various stages of pulmonary disease, arguing correctly, that such a course indicates "a low state of medical observation." With regard to their effects, he says: "They increase nervous force, and are the most powerful hematogens, possessing all the therapeutic value of phosphorus, without the danger formerly attending its use." And further, he adds, "I regard them as prophylactic and curative in every stage of phthisis." Dr. Taylor, while not fully endorsing the views of Dr. Churchill, as to the universal value of the hypophosphites, says: "They remarkably sustain the vital power, and in the earlier stages, and before vital declension has become a constitutional power, controlling every organic function, they have an admirable effect, enabling the best known means to have increased remedial energy, and thus to effect many more cures than formerly."

How these remedies operate, is an important question. And it is here that chemistry and microscopy, in their minutest details, agree with experimental research in arriving at the same conclusion. With regard to the oil, Dr. Williams, before referred to, says that it "proves serviceable in supplying the fat molecules which appear to be essential to healthy nutrition, as forming the nucleoli of the primary cells or rudiments of tissues." We

believe that it is now generally admitted that fat performs an important part in the process of nutrition, forming the central primary molecules of the elements of textures, and as the digestive organs in phthisis are in an enfeebled state, and incapable of transforming ordinary food into a proper form for supplying the blood with healthy material, that the oil, by its great divisibility, highly nutritious qualities, and ready assimilation, is best adapted for this purpose.

The immediate action of the hypophosphites may, we think, be satisfactorily explained by referring to the fact that the healthy brain and nerves of the adult contain nearly two per cent. of phosphorus, and that phosphate of lime is absolutely essential to the construction of tissue. It will also be remembered, that nervous activity depends very much upon the amount of this material in the nervous system, and that as the result of great mental effort, as in the case of clergymen at stated intervals, and lawyers about turn time, the amount of phosphates in the urine is abnormally increased. Professor Draper, writing before the general use of the hypophosphites, says, "Phosphorus in the form of phosphoric acid and phosphate of lime and magnesia, exists in the blood; but in the blood-cells there is six times as much as there is in the plasma, and as phosphorus is required as an element of the phosphorized oils in the nervous system, it is inferred that the blood-cells have a direct functional relation to that system."

When we remember that in phthisis, comparatively large quantities of the alkaline phosphates escape in the various excretions, we are not surprised to find that the hypophosphites exert a decidedly stimulating and beneficial influence in such an atonic condition. Supplying, as they do, in a proper form the material for reparation of the weakened tissue, and accompanied by a nutritious diet, the happy results of their scientific administration cannot be doubted.

Having thus briefly examined the conditions existing in this disease, and the remedies that have been most successful in its treatment, it remains for us to inquire what are the most rational means for its prevention or arrest.

It must be evident that any system of prophylaxis, to be really valuable, must admit of the widest application, so that a majority of those who are threatened with this terrible malady may be able to avail themselves of its benefits. It is of very little use to pre-

scribe port wine and boiled chickens where the daily wages can scarcely furnish the plainest necessities of life, nor to order a sea-voyage or a trip to the western prairies, where the patient has not even the means for a carriage-drive at home. But directions *may* be given which *can* be followed, and it becomes the duty of the Profession, more than ever, to become the educators of the people in this respect, and to endeavor to convince them that social reforms and hygienic measures are of vastly greater importance than any specific topical medication. Parents, whose children inherit a strumous diathesis, should be warned against allowing the intellect to be cultivated at the expense of the physical health, and urged to select such occupations for them as will require a large amount of exercise in the open air. Particular attention should be paid to muscular development, a liberal and nutritious diet allowed, and regularity in all the functions of the body enjoined. They should be taught that the voluntary reproduction of this disease, or a failure to use proper means for its prevention, is a crime against their posterity, and so far as can be advised with prudence, intermarriages of persons who are thus predisposed, should be discountenanced.

The same general principles are applicable to the second class of subjects, although at a much later period. When we revert to the fact that emaciation and loss of nervous power are generally to be observed before any serious or fatal leison has taken place, and that these are often associated with close confinement to sedentary employments, want of fresh air, excessive mental labor, and other kindred depressing agencies, the importance of ordering an immediate and radical change of occupation will be clearly manifest. If we can succeed thus early in inducing the patient to embrace our views, and cheerfully follow our advice, we shall have accomplished the first and most important part of our plan. For it is evident that if medicinal agents are necessary, we shall succeed much better with them if the circumstances, which have tended to the production of disease, are removed.

The next thing is to have the employment so entirely different as to supply new trains of thought, and divert as much as possible the mind from dwelling upon those subjects which have been associated with the degradation of the vital powers. In connection with this, and closely dependent upon it, is the improvement of the nutritive function, so essential to the production of healthy

blood, and the consequent reparation of the wasted tissues. No better change can be devised for the diligent student, worn down by continuous mental effort, living in a close atmosphere, and depriving himself of the necessary amount of sleep until his enfeebled system craves but little food, and digests that little imperfectly, than to place him upon a farm, with the understanding that he shall wholly give up study for at least one year, and devote himself to the different kinds of labor required in his new position. It will not be long before the appetite will return—the flesh improve in weight and hardness, and, perhaps, finally convinced that his life has been in danger, he may be induced to preserve his health and usefulness by permanently following his new occupation,—leaving others, who are physically better endowed, to fill the literary position to which he had aspired. Doubtless most physicians of even a few years' experience can recall cases where a blind persistence in a studious life has hurried the patient to an early grave; and others, where a judicious course of the kind stated has been productive of the best results to the patient, though at the sacrifice of the hopes and aims of his early life.

In many instances the complete change of occupation and mode of living, without the use of medicinal agents, will arrest the disease. The following cases are in point:

O. C., aged 25, married, by trade a rule-maker, was taken with symptoms of phthisis in the summer of 1855. He pursued his work not only by day, but brought it home in the evening and applied himself closely to it. He was emaciated, low spirited, had cough, and but little appetite. He was obliged to give up work, and received medical treatment with only temporary relief. In the autumn he grew worse, and on his wife becoming sick, gave up entirely, and supposed he must die. At this time a relative from the country visited him, and by my advice took him home,—induced him to go out with a dog and gun for a few days, and as he became stronger, furnished him with a horse and wagon, and a small stock of goods, with which he went about the country as a peddler. He soon improved, gained in flesh—his cough left him, and during the past few years I have seen him many times pursuing the same business through some of the severest weather, and with much less clothing than seemed necessary for comfort.

W. M., aged 18, student, of excellent habits, regular in his food, digestion and exercise, came to me for advice in January, 1864.

He has naturally a small frame, and for the last year had rather lost flesh, weighing but ninety pounds. He had a very slow pulse, cold hands and feet, deficient appetite and sleep, and a slight cough. His mother died of phthisis about six years since. He was advised to leave College at once, to give up the idea of study for a year, and in the spring to find some farmer who would board him for his work. He left his studies, increased his exercise, and was treated with appropriate remedies until March, but with only slight amendment. At that time he left home for a place five miles in the country, and went to farming with as much diligence and zeal, as if it were the business of his choice. For a month or so there was not much change, but during the summer he improved finely, had a vigorous appetite, and is now (March, 1865) a robust, healthy young man, weighs one hundred and eighteen pounds, and is free from all appearance of phthisis.

The foregoing cases are only used as illustrations of the general principle of change of occupation. It must of course be left to the judgment of the medical adviser in any particular case, to say what that change should be; but it should be made the *first requisite*, and the basis of all remedial measures.

Where the means of the patient will allow, a removal to a more mild and equable temperature will be a useful and pleasant auxiliary, but this alone is not sufficient. Climate, in itself, exerts no direct agency in arresting phthisis, but merely favors this result by affording a better opportunity for daily exercise, and free expansion of the lungs in the open air. The enervating influence of a state of idleness, especially in a congregation of invalids, can hardly be over-estimated. Business, sufficient to occupy the mind pleasantly, should be enjoined, which, with the exhilarating impressions produced by new scenery and associations, will prove of great advantage.

After what has been said of the nature of phthisis, and the character of the remedies that have proved most successful, the deductions with regard to diet, and medicine when necessary, will be sufficiently obvious. It may, however, be remarked, that in addition to the best diet, diffusible stimuli, as wine, ale, &c., used regularly with the food, will often be found beneficial in promoting nutrition. These, however, should be only subsidiary to alimentation, to stimulate and assist the enfeebled organs in the process of assimilation.'

The subject of marriage, in its relations to the propagation or gradual abatement of this disease, offers a wide field for investigation, but it is not believed that the public at large are sufficiently educated in physiology to accept or follow the views which might justly be presented.

After all that we can do, there will be many cases wholly beyond the reach of the most correct hygienic measures, or the most skillful medication,—cases of intrinsic tendency to degeneration and decay,—cases of mental and moral incapacity to comprehend, or to follow a proper course for recovery, and many more whose inevitable circumstances and surroundings render them hopeless.

But if we can with watchful eyes detect the early approach of this insidious disease,—if we can persuade its unwary subject to adopt an occupation suited to his physical necessities,—if we can see health and vigor restored to even a few who would otherwise pass into a premature grave,—we shall have cause to be satisfied with our unpretending advice, and to accept with greater faith than ever the homely adage, "Prevention is better than cure."

ARTICLE IX.
SPECIFICS.

BY ELISHA B. NYE, M. D., OF MIDDLETOWN.

Read before the Middlesex County Medical Society, April, 1865.

IN each of the several departments of Nature, the slightest study suffices to reveal the fact that it is made up of comparatively a few simples or elements, and that the vast variety and extent which it exhibits, result from varied and less or more complex combinations. Indeed, the existence of these simples would seem to derive its importance, if not exclusively, yet mainly, from their relation to higher and more important types embraced in the class.

Again, if regard be had to the different kingdoms of Nature in their relation to each other, we find the same general law obtains. Thus not only do a few metals, earths, etc., in their varied combinations, make up the world of beauty or utility embraced in the inorganic kingdom, or those lowest of all forms of organic existence, the infusoria, find, so far as appears, no so important function as contributing to the existence of the higher types, the finny tribes, or insects to that of birds, but each lower kingdom contributes to the creation or maintenance of a higher. The earth is essential to the existence of the vegetable, and this to the animal, and this again, and all minister, directly or indirectly, to the wants of the highest order of terrestrial existence—man.

Of the various relations which man sustains to the creations below him, that which more especially invites the study of medical men, is that from these creations are derived what are technically known as the *Materia Alimentaria* and the *Materia Medica*. Leaving out of the account those articles which are simply alimentary, what is the lesson to be drawn from the peculiar and varied effects of medicinal articles upon the human system?

Among those already known, we have different groups or classes which act determinately and certainly, each upon one or more of the different organs or systems which make up the human body; nay, more, each one of a class acting upon a particular division of the human system, acts either upon a particular portion of it, or in a peculiar manner; for example, among the cathartics, some act especially on the large intestines, others on the upper portion of the tube, and others again upon organs connected with it. Or to take a class which still more strikingly illustrates this truth—the cerebro-spinants, or narcotics—some produce convulsive action, others paralyze, others benumb, and still others produce tremor; some cause contraction of the pupil, others dilate it. Indeed, so varied are the effects of agents of this class, that modern authors divide them into ten different orders, which are again subdivided, and numerous as is this class, each individual, while possessing powers which determine its position in a classified *materia medica*, acts specifically different from every other one of its class.

Now in all other departments of Nature, where one substance is capable of acting upon another, such capability seems to be bestowed for accomplishing one or more specific purposes; and further, the higher in the scale of being, the object on which this power acts, the more desirable and important the end for which it is exerted. So numerous, so striking, and so important are the examples of it, that it is a universally accepted law, that a power in Nature implies use. The argument then *a priori* is, that the peculiar and specific powers with which the different substances constituting the present and future *materia medica* are endowed, are for peculiar and specific purposes. To assert the contrary is to assume the position that in this department alone, Nature anomalously reveals herself in a way the most striking, and apparently most suggestive, but really most meaningless; and this, too, where the object to which these powers are directed, that is, man, occupies in the scale of being, whether we regard his relations or his functions, a position infinitely above that of the world around him.

There being, so far as appears, no other use to which these powers can be applied, the inference then would be that they are designed to relieve morbid states of the human system; and that for the same reason that diuretics, cathartics, and so forth, are

useful as such, the peculiar and specific effects of each are designed by Nature for, and adapted to, the relief of specific morbid states. In actual practice, however, while a few medicines are exhibited as specifics, they are usually employed for their general effects; in other words, to relieve the effects of disease rather than to neutralize the disease itself. For confirmation of this statement we may refer to the class denominated zymotic, in which are embraced most of the grave acute diseases we are called upon to treat. Of the cathartics, diaphoretics, stimulants, tonics, etc., which are given, none are expected to remove or neutralize the morbid agent or morbid state upon which the disease depends, but rather the morbid state produced by it.

But the question we have thus far considered speculatively, should receive some elucidation from experience; a real progress implying, if the view we are taking be correct, an increase of specifics, as well as improved modes of general medication; and such would appear to be the fact. Less than half a century since our specifics were mercury for syphilis, balsam of copaiba for gonorrhea, sulphur for scabies, and cinchona for intermittent fever. Now the nitrate of silver may as justly lay claim to the distinction as a remedy for the various inflammations of the mucous membrane lining the intestinal tube. Whisky, and perhaps other alcoholic liquors, for the bite of venomous snakes, and the *sarracenia purpurea* or pitcher-plant, in variola, bid fair to secure the same character. Quinine also, while maintaining its preëminence as a remedy for intermittents, is coming to be regarded as *the* remedy for all fevers of miasmatic origin. In certain forms of typhus also, given in large doses, it mitigates every symptom in a most wonderful and peculiar manner, changing it, in a few hours, from a severe and threatening, to a mild and manageable form. The tincture of the sesquichloride of iron seems to have operated with striking efficacy in acute erysipelas, given in that stage of the disease when the pyrexial state is such as, on general medical principles, all chalybeates would be contra-indicated. Opium and its salts in unusually large doses, have within a few years effected most remarkable cures of that truly formidable and, oftener than otherwise, fatal disease, puerperal peritonitis. The same articles, opium and its salts, and perhaps chloroform in delirium tremens, as well as *actea racemosa* in chorea, may also be cited. Again, as sustaining the view we are taking, reference may be made to the

numerous cases recently reported in medical journals, showing that opium and belladonna, although both narcotics, possess powers which make each antidotal to poisonous doses of the other.

As the older so-called specifics do not always cure, so in the cases we have cited, we do not claim that the articles named always cure every case included under the name of the disease for which they are used as specifics; nor is it necessary to our purpose that they should. It is enough that they are generally successful, and that they operate by other powers than those that determine their place in a classified materia medica; in other words, operate specifically rather than by their general impression on the system. As to the articles cited, operating in the manner indicated, we think there can be no question, excepting perhaps, in the cases of opium or its proximate principle, and chloroform. A little examination, however, will, we think, suffice to show that they cannot be regarded as exceptions. In the few cases where opium and morphine have failed to relieve delirium tremens, although the article had been given in full and repeated doses, for from thirty-six to forty-eight hours, we have more than once seen chloroform in doses even so small as ten drops promptly arrest the disease, (the dose of the article according to the United States Dispensatory being from sixty to eighty drops;) but if the disease was to be cured by virtue of an anti-irritant or soporific power simply, the full dose of the opiate should have been the efficient remedy, rather than the small doses of chloroform.

A few years since the medical journals contained accounts of the successful use of half-ounce doses of tincture of stramonium in puerpural convulsions; and of the like success with the same doses of digitalis in delirium tremens. Now here we find old articles indeed, but exhibited in doses which would have been before regarded as dangerous, if not fatal; and one of them at least, the stramonium, for a disease which would not be suggested from the ordinary physiological effects of the article on the animal economy. But if the accounts can be relied upon, they not only did not produce any injurious effects, but relieved the patients *cito tuto et jucunde*. Perhaps these articles are destined ultimately to achieve a character that shall entitle them to be regarded as specifics in the sense in which we here use the term, for the respective diseases for the cure of which they were given, as well as for others. Whether so or not, the facts, as such, are valuable, and we will

remark, in passing, are suggestive of the query whether, in cerebral diseases, which as a class are little amenable to any recognized system of treatment, we are not to look for greater success in treating them, in the use of articles of the *materia medica* having a special physiological relation to the brain, and in doses which seem to be, and perhaps in other cases would be, dangerous.

This cursory glance at the teachings of Nature and of medical experience, we think, gives plausability, at least, to the idea that in the future as in the past, real progress in pathology and therapeutics will lead to an increase of specific remedies ; or more broadly stated, that a (doubtlessly unattainable) perfect system, would involve a complete system of specifics. If, however, we may seem to have drawn from the premises a conclusion unwarranted, all will, we think, assent to the leading idea aimed at, that future study and future experience will lead to more definiteness and certainty, both in principle and practice.

A comparison of the present state of medicine with a not remote past, justifies the expectation of still nobler triumphs than what have already been achieved, numerous and important as they are. Many of the old methods of treating disease were obviously the whimsies of the imagination, rather than the suggestions of sober judgment and experience. It is less than two centuries since a king of England, in his last sickness, around whose bedside were gathered all the medical men of note in London, was treated with "hot iron applied to the head," and "a loathsome volatile salt, extracted from human skulls, forced into his mouth." It is since the birth of thousands now living, that scarlatina and rubeola were first discovered to be not one and the same disease. These facts, and others of similar import, which might be cited, are sufficient to show that medicine is a progressive science. Never indeed has it been more so than now. Chemical researches are constantly bringing forth new and important compounds from the mineral kingdom. The vegetable world, which seems to be the most prolific source of supply to our *materia medica*, and which embraces, according to the estimate of Humboldt, not less than two hundred thousand different plants, is destined to enlarge immensely our already copious list of remedial agents. New uses of old remedies are constantly being discovered also. The rapidly accumulating and recorded experience of medical men throughout the globe, and which as yet may seem of little practical use, is to

be the source and foundation of inductions which shall render the subject of disease better understood, and the treatment more certain and successful. If, in the case of chemical poisons accidentally introduced within the system, chemistry supplies the means of rendering such poisons harmless, perhaps future researches may not only reveal the fact that most diseases are but poisons introduced into, or generated in the system, but by a chemistry at present too subtle to be cognizable by us, may supply the antidotes.

This train of thought naturally suggests the subject of prophylactics. The positive agents of this class are vaccinia for variola, and perhaps cinchona or its proximate principles for miasmatic diseases. The question as to the prophylactic power of belladonna for scarlatina, we believe, remains unsettled. Considering the abundant provision of Nature for the cure of diseases, it would be somewhat strange if, aside from those of a hygienic nature, the number of agents capable of preventing them, should be limited to one or two. Farther investigations in this direction might not be without important results.

From the power which our science, imperfect as it is, furnishes us for the mitigation of human suffering, and the prolongation of human life, and the still greater triumphs which its future promises, we may draw adequate motives to its faithful prosecution, and effort for its improvement. If the decree of Infinite Wisdom is that the power provided for the cure of disease, to be available, must be studied, it is in the exercise of the noble faculties bestowed on man in the prosecution of this study, that he best illustrates the beneficence of the Creator, and most exalts himself.

ARTICLE X.

REPORT OF TWO CASES OF STRANGULATED HERNIA.

BY CHARLES M. CARLETON, M. D., OF NORWICH, CONN.

Read before the Connecticut Medical Society, May 25th, 1865.

CASE I.

Mrs. N. C., aged 41, wife of a respectable farmer in Montville, Connecticut, states that in April, 1862, she attempted to get into a wagon; the horse started when she had one foot on the wheel and the other in the wagon; she saved herself from being thrown, but experienced a severe strain low down in the left groin.

She was merely troubled with weakness in the part, until April, 1864, when she was attacked, as she supposed, with bilious colic, and used some domestic remedies for its relief. These failing, she called in my friend, Dr. Perkins, of Montville, who discovered a small femoral hernia, which he reduced, giving her immediate relief. She resumed her work in a few days.

The trouble returned twice during the succeeding summer, and again on the 20th of November, and was each time relieved by Dr. Perkins.

On the morning of the 26th of November, 1864, the hernia came down again. Dr. Perkins was called, and during the day made several unsuccessful attempts to reduce it. On the following evening I was summoned to reduce it by operation.

The case presented the usual symptoms of strangulation, which it is not necessary that I should here enumerate.

I immediately etherized the patient, and then made my examination.

I found a femoral hernia on the left side, about the size of a pullet's egg.

After satisfying myself that it could not be reduced by taxis, assisted by Dr. Perkins, I proceeded to operate by Gay's method.

After making my incision I found signs of a stricture in the sack. I therefore extended the incision, and completed the operation by the old method, opening the sack. The seat of the principal stricture was at Gimbernat's ligament, a few fibres of which being cut, the hernia was readily reduced, the sack being left out. The wound was closed by sutures, except a small portion which was most dependent, and a compress and bandage applied; ordered *Morphiæ Aectatis*, gr. ss., to be followed by a quarter of a grain every four hours, so long as there should be any pain. The diet to consist of gruels.

29th, was quite comfortable; pulse 86; tongue slightly coated, but moist; skin moist and warm; had had no dejection. The wound was healed, except the small corner left open, which was beginning to discharge a small amount of laudable pus. Removed the sutures; ordered *Oleum Ricini* oz. ss., with *Morphiæ*, gr. $\frac{1}{4}$.

I did not see her after this, as she lived at a distance from my office, but learned through Dr. Perkins, that the oil operated well, and that she made a good recovery from that time, resuming her work in less than two months.

In this case the operation was performed about fifteen hours after the occurrence of strangulation.

CASE II.

F. C., aged 42, Overseer in Cotton Mills at Sprague, Conn., states that he had a congenital hernia, for which he wore a truss until three years old, when he was thought to be cured. At the age of seven years the hernia was reproduced while he was at play, and he was obliged to wear a truss for the next five years, after which time it caused him no further inconvenience until 1857, when he left the mill, where he had worked since a boy, and went to farming. The moving of stone and other heavy work caused the hernia to reappear. He has been obliged to wear a truss from that time. In the spring of 1864, he returned to the mill, and while making some repairs, raising heavy timbers above his head, the hernia escaped from under the truss much increased in size. It has since been a source of constant trouble.

In November, 1864, it became partially strangulated. Dr. Woodward, of Franklin, was called, and reduced it with much difficulty, after having etherized the patient.

On the 7th of December, he ate largely of mince pie, which gave him a diarrhoea, attended with much tormina and tenesmus.

About seven o'clock, A. M., on the 8th, the hernia became strangulated again. Dr. Woodward was called, but being unable to reduce it, I was sent for to operate. I arrived at the house of the patient, which was eight miles from my office, between 9 and 10 o'clock, P. M., of the same day. I found him presenting all the symptoms of strangulation in an aggravated degree. The hernia was a right oblique inguinal of about the size of my two fists. The operation was performed in the usual manner. On reaching the sack it was found to be of a very dark color, and evidently contained a large quantity of serum. The sack was opened, and the serum escaped, discovering the intestine of so dark a hue that we feared the operation would be of no avail. I divided the stricture, which was situated at the inner ring, and then waited to see the effect upon the intestine. This soon showed that it was possessed of sufficient vitality, by becoming mottled throughout its whole extent, with numerous small, narrow colored spots. It was then replaced, and the wound closed and dressed, as in the previous case, and the same treatment ordered. In this operation I was assisted by Dr. Woodward and Dr. Brewer, of Sprague. We estimated that the hernial sack contained about eighteen inches of intestine.

December 10th, he was quite feverish; pulse 130; tongue coated and parched; complained of persistent eructations of everything taken into the stomach, and of great pain and tenderness in the abdomen. There was no tympanitis. Ordered Seidlitz powder every six hours; and to continue the morphine.

12th, has taken four Seidlitz powders; pulse 100; tongue coated but moist; less pain and tenderness; has had no dejection, but passes wind freely; no eructations. The wound was healed. Removed the sutures. Ordered Oleum Ricini, oz. ss., with Morphine, gr. $\frac{1}{4}$.

14th, has had three dejections; pulse 80; tongue moist; skin natural; and he reports himself as every way comfortable.

From this time he gradually recovered under the care of Dr. Woodward.

ARTICLE XI.

WET SHEET PACK IN SCARLATINA.

BY R. W. MATHEWSON, M. D., OF DURHAM.

(Continued from page 84, *Medical Communications*, for 1864.)

Read before the Middlesex County Medical Society, April, 1865.

At our last Annual Meeting I read a paper on the Water Treatment of Scarlatina, particularly by the Wet Sheet Pack. I gave the views of Bateman, Currie, Gregory, Bell and Trousseau, on the value of the external application of cold water in this disease, and also of Pereira and of C. J. B. Williams, on the great power of the Water Cure appliances, as used by Priessnitz and also of Dr. Carpenter, in his Human Physiology, who says, "The Wet Sheet, as used by Hydropathists, is one of the most powerful of all diaphoretics. . . . Will be employed more extensively as a therapeutic agent, in proportion as the importance of acting on the skin, as an extensive collection of *Grandulæ* comes to be better understood. . . . There is strong reason to believe that it will be found to be the most powerful means we possess for various specific diseases, which depend upon the presence of a '*definite materia morbi* in the blood.' " I then gave my own experience with the use of the Wet Sheet Pack, in the ordinary form of Scarlatina. Since the publication of my Article, I have had an opportunity to try its effects in an epidemic, characterized by a strong determination to the gastro intestinal surfaces, manifested by vomiting and diarrhea, which continued one or two days, or until the effects of the wet sheet were obtained. In all of these cases it acted like a charm, bringing out a uniform scarlet on the surface, and relieving the unpleasant symptoms.

One of my own children had the disease in this form, with a diptheritic coating of the throat. One or two packs every twenty-four hours was used for several days—her mother staying with her nights and sponging her off with cold water as often as the heat of the surface was above natural. The sheets we used without local medication; and although we had five other children almost constantly exposed, not one took the disease. This occurred in several other families, from which it appeared that the contagion was in some way destroyed by the packing; this apparent effect was first noticed by my lamented wife.

In one case a servant girl, 20 years old, had had the disease for ten days, and refused to have a physician. I was not sent for until her employer, a very intelligent lady, sent for me on her own account. I found her with a bad countenance, irregular pulse, constantly varying from 155 to 170 in a minute, constant vomiting, so that medication by the mouth was impracticable. I gave an unfavorable prognosis, in which all agreed. I told the lady the pack was the only means I had any confidence in, but if she died in spite of it, I should have outsiders to contend with; and if she died without a trial of it, I should have my own conscience to contend with. They all readily agreed to a trial as proper; always have done so when I proposed it.

The effects of the pack were all that could be desired, and it was repeated several times by the patient's particular request, as they always do if the fever return, the relief is so great. These cases all recovered perfectly without the least sequel. I now feel perfect confidence to warrant the patients and their friends that no sequel shall follow a thorough use of the pack. I have now used the wet sheet in this disease more than fifty times, and every case has increased my confidence in its power to modify the cause of the disease. Used at the most restless period of the night, it calms excitement and causes quiet sleep in a few minutes; reduces the pulse from 20 to 30 beats in a minute; diminishes heat—and by its power to eliminate the poison through nature's chosen outlet from the system, removes the cause of excitement and complications. Any person who has an opportunity to smell the odor of the apartment at the unpacking, needs no further evidence that something has been eliminated from the patient. The wet sheet has all the sedative effect of the cold sponge, with a more sure reaction, and an additional eliminative effect on the disease. With

the use of this remedy, this disease, so much discarded by me in my practice, is now in a measure disarmed of its terrors.

I will here add, that I have used the wet sheet in measles with the happiest effects, and have no doubt but that it will be found the great remedy in this disease, and also in Variola.

For illustrated directions for the use of packing, the reader is referred to my former Article, to which this is a Supplement.

ARTICLE XII

REPORT ON DIPHTHERIA,

AS IT PREVAILED IN MADISON, CT., 1864.

Read before the Middlesex County Meeting, April, 1865.

BY E. W. MATHEWSON, M. D., OF DURHAM.

IN August last, during the great drouth, this disease attacked a child of Mr. John Dudley, living near the centre of the town of Madison, in a valley containing many marshes and streams of water, all of which were dry from the excessive drouth. In this family of five persons, but one, the childless widow, was left to tell the tale. From this focus the disease was conveyed to different localities, by watchers and others who visited the infected house; these had the disease at their own homes, giving it to their families, while many living near, who were not exposed, escaped the disease.

Henry Watrous was at Mr. Dudley's while a child was vomiting with the disease. He had the diphtheria at his father's house, in the valley of the Hammernassett, several miles distant, when six others took it, two of whom died.

Mrs. Polly Dudley watched at Mr. Dudley's, had the disease at her own house on Summer Hill, several miles distant, and her daughter Katy took the disease and died.

Mrs. Hopson also watched, had the disease at her own house nearly a mile distant, six of her children had it, one of whom died.

Mrs. Maynard assisted in laying out one of the Dudley children, had the disease at her own house on Town Hill.

Mr. William Stevens and wife were at Mr. Dudley's, both had the disease, also one of their children. The father and child died. Making in all, twenty-five well marked cases which could be traced to one source.

There were two other cases, numbers twenty-three and twenty-six, which could not be so distinctly traced. From these two proceeded three other cases, making all the well marked cases within several miles. There were as many more slight cases, of which no account has been taken, nearly all of which proceeded directly from the well marked cases.

In cases where there was a single exposure to the contagion, the period of incubation was about five days; in many of the cases the exposure lasted for days and weeks; in these of course it is not possible to know what day the incubation commenced. One person might be in a susceptible condition one day, and not on another. While another person might not come into the proper condition for receiving the disease at any time during the exposure, and of course escape it altogether. Trousseau illustrates this liability to receive contagion one day and not another by the case of five hundred sheep in a fold. One has the rot, a disease similar to variola in man, in a fortnight a few others will be taken sick, and each day a few more for several months, although all were exposed alike, breathing the same air and pressing against the sick, wet with pus from the disease.

In some cases in families where there were others under treatment, by a resort to the remedies in use for the other cases, the disease seemed to be kept at bay for a time, when by leaving off the remedies the disease would gather strength and make a bold attack.

Of the thirty cases in the subjoined table ten, printed in italics, were treated by various physicians from other towns, with a loss of one in two; the other twenty cases were treated by myself, with a loss of one in five; in the whole thirty cases, the deaths were one in three.

The Access in most cases was sudden; the sufferings in many cases were as severe within an hour, as at any period of the disease; yet the violence of the attack was no indication of the severity of the disease; the worst cases were the most insidious in their approach.

Prognosis.—Violent coryza, attended with a profuse discharge, soon becoming sanious and offensive. Laryngitis and pneumonia in the early stages, and in the sequelæ vomiting and suppression of urine, were very unfavorable symptoms. Albuminuria was present in the worse cases.

Paralysis of the nerves of the palate, special sense and voluntary motion, all disappeared with the returning strength.

Suppuration of the glands about the neck was followed by recovery in every case.

Dysentery of a peculiar form occurred as a sequel in five cases, numbers one, five, eight, twenty-six and twenty-nine; in one case, number thirty-one, the two diseases existed at the same time; in four cases, number eleven and three others not included in the table, no throat disease existed; five cases were treated by me with calomel and Dover's powder, with one death; the five were treated in a different manner by physicians from other towns, with the loss of the whole number.

In this dysentery there was no mucous in the discharges, but the beef brine appearance from the first. There was no tenesmus or pain during the discharges, but excruciating pains coming on in paroxysms, lasting a minute or two, during which the child would shriek with agony, and the next minute might be laughing.

Treatment of Diphtheria.—In some of the fatal cases I learn it was strongly cathartic. In cases treated by myself the treatment was tonic and supporting. Quinine, whisky, wine, muriate of iron, in doses of two drops for each year of age up to fifteen, in a tablespoonful of a saturated solution of chlorate of potash every four hours.

Permanganate of Potash* is powerfully oxydizing, cleanses diseased surfaces, destroys offensive odors, arrests and removes the exudation, is a valuable remedy in the disease. A solution of one or two drachms to a pint of water is used as a wash, and internally in doses of a teaspoonful every four hours. I have found difficulty in obtaining a good article. That prepared by J. R. Nichols and Company, of Boston, is in crystals, and makes a beautiful red solution.

The Bromide of Potash is another remedy, acting constitutionally and locally in this disease, it is particularly adapted to croupy varieties, and when there is much nervous irritation.†

* See American Journal for January, 1865.

† Dr. Gubler, physician to Beaujon Hospital, has investigated the effects of this article by experiment and clinical observation, and says it is a most powerful sedative, acts on the motor nervous system and circulation, is an anesthetic to the throat, isthmus of the fauces, pharynx, cesophagus, larynx and air tubes. In

May not this effect account in a measure for the power of this remedy to ward off attacks of epilepsy? One patient in my practice has had the intervals extended from days to as many months by a use of this article.

As a local application, ice is one of the best in the early stages. A solution of the Persulphate of Iron reduced one half, or a solution of Monsel's Salt of the same strength, arrests and removes the exudation, and acts as an astringent to the relaxed surfaces.

The Nitrate of Silver in solution does well in some cases. Both the last two articles should be used with a soft camels' hair pencil of large size. A solution of Chloride of Soda may be used in the same manner. Rough articles introduced into the throat, forcibly removing the exudation, are a fruitful source of mischief. Nothing is gained by a premature detachment of the coating. A decoction of the bark of the root of the Pussy Willow as a gargle relieves the throat of mucous, and is usually liked by the patients.

I have used each of the above local applications in many cases with great satisfaction, and in many cases have known each of them fail of any relief, when another of the same list seemed to do well.

When the nasal fossæ are effected, these solutions may be used locally, reduced some, and a little Glycerine added to the solution. These injections should be given with a catarrhal syringe, so called, having a long curved tube, terminating in a finely perforated bulb. With this introduced into each of the posterior nares, the cavities of the nose and the fauces can be showered at the same time. This treatment should be commenced early in the disease, as in bad cases the cavities of the nose soon fill up, preventing local medication.

The common syringe, throwing a single stream from before backwards, assaults the delicate schneiderian membrane too roughly, causing hemorrhage.

this way, it relieves laryngismus, an important indication in every variety of croup, thereby relieving the breathing; it allays irritability, and induces sleep, equal to opium, in many cases; it also quiets inordinate action of the throat, in some patients a great source of irritation. Dose, five to ten grains in solution every four hours. See New York Medical Journal for May, 1865.

No.	Name.	Age.	Exposed.	Attacked.	Result.
2	John W. Dudley, .	9		Aug. 5,	Dysentery Oct. 3, died 7.
3	Maria Dudley, .	5	Aug. 5,	Aug. 9,	Died Aug. 18.
4	John Dudley, .	40		Aug. 16,	Died Aug. 12.
5	Mrs. Sabra Dudley,			Aug. 21,	Dysentery Oct. 10.
6	Lena Dudley, .	11		Aug. 24,	Died Aug. 31.
7	Henry Watrous, .	8	Aug. 11,	Aug. 18,	
8	Charles Watrous, .	7	Aug. 18,	Aug. 21,	Died Sept. 10.*
9	Adelbert Watrous,	11		Aug. 23,	
10	Minnia Watrous, .	1		Sept. 6,	Dipt. croup, d. Sept. 12.†
11	Ida Watrous, .	2		Sept. 4,	Dysentery, recovered.
12	Russel Watrous, .	41		Aug. 27,	
13	Emma Watrous, .	14		Aug. 27,	
14	Mrs. Polly Dudley,	44	Aug. 24,	Aug. 29,	Partial paralysis.
15	Katy Dudley, .	16	Aug. 29,	Sept. 3,	Died Oct. 7.‡
16	Mrs. Hopson, .		Aug. 22,	Aug. 29,	Partial paralysis.
17	John Hopson, .	16		Sept. 19,	
18	Maybel Hopson, .	19		Oct. 9,	
19	Leonard Hopson, .	13		Oct. 25,	
20	Dwight Hopson, .	6		Oct. 29,	
21	Addison Hopson, .	22		Nov. 9,	Died Nov. 21.
22	Eunice Hopson, .		From Nov. 9,	Nov. 20,	
23	Mrs. Maynard, .		Aug. 30,	Sept. 5,	
24	Carlos Norton, .	7		Sept. 30,	
25	Mrs. Norton, .	26		Oct. 15,	
26	George Norton, .	31		Oct. 16,	§
27	Alice Smith, .	11		Oct. 26,	Died of croup Nov. 1.
28	Emma Smith, .	9	Oct. 26,	Nov. 1,	
29	William Stevens, .		Aug. 18,	Aug. 22,	Died of dysent'y Oct. 3.
30	Mrs. Stevens, .			Nov. 26,	
31	Minnie Stevens, .	8			Died Oct. 12, of dysentery and diphtheria.

* This patient had been reduced by saline cathartics before I saw him. He recovered from the diphtheria, and then from dysentery. A few days after which, he was taken with vomiting and suppression of urine, of which he died in a few hours.

† This child was not seen by me until the third day of the disease. I found the coating on the palate and tongue a quarter of an inch thick with free rounded edges, appearing in every way like strychnos bean; the coating of the windpipe had made such progress as to defy medical treatment.

‡ This was a severe case; nose badly affected; patient recovered apparently, so as to be about and go to the neighbors for two weeks, after which she was taken vomiting with pain in the back, pulse eighteen in a minute, with total suppression of urine, which continued forty-eight hours, when she died. Her mind was not affected to the last.

| This patient had previously a large excoriation on the leg, which became coated simultaneously with the throat; both appeared and progressed alike. The respiratory surfaces were violently affected, beginning with coryza and ending with pneumonia. The discharge from the nose in the early stages was almost a stream.

§ The dysentery in this case followed the throat disease about two weeks. The patient recovered, but ever since has been subject to relapses of the throat disease, which are always followed immediately by pain in the bowels, and dysenteric symptoms.

BIOGRAPHICAL NOTICE OF
PROF. CHARLES HOOKER, M. D.

BY HENRY BRONSON, M. D.

CHARLES HOOKER, the son of William Hooker, a respectable farmer, and a descendant of the Rev. Thomas Hooker, of Hartford, was born in Berlin, Kensington Society, in this State, March 22d, 1799. When fourteen years of age he became the pupil of the Rev. Abel Flint, D. D., of Hartford, and in 1816 entered the Freshman class of Yale College. While a member of this Institution he maintained a high character for industry and general scholarship, was somewhat distinguished in Mathematics, and had a good reputation as a writer. He was a bright, active, sprightly youth, social in his manners, agreeable as a companion, who knew everybody, and sang in the college choir. Though a little fond of innocent mischief, he did not get a bad name; did not form evil habits; did not chew tobacco; did not contract debts which he could not or would not pay. Even at this early period, when independent opinions are not expected and not encouraged, he was known to entertain some views peculiar to himself. In 1820, he was graduated, ranking, in the way of scholarship, ninth or tenth in a class of fifty-eight. At the commencement exercises, he had a part in a Dispute, and another in a Colloquy, the last named exercise (a humorous piece, which afforded considerable amusement to the audience) having been written wholly by himself.

After leaving college, Mr. Hooker entered the office of Eli Ives, M. D., (whose wife's sister he afterwards married,) then a professor in the Medical Institution of Yale College, and one of the shrewdest and ablest practitioners of the State. Here he remained for most of the time till the conclusion of his medical pupilage—a period of two years and a half. During this period, however, he went to New York, engaged himself as an instructor in a private family, and by means of the assistance thus obtained, attended a

course of lectures, (in the College of Physicians and Surgeons, I suppose,) and made himself familiar with hospital practice. In the fall of 1822, he returned to New Haven, when he became, for the first time, a member of the medical class of Yale College. In the catalogue of that year, his name is entered as a second course student, from *New York*. While engaged in his professional studies, he was incessantly occupied. His love for Botany, which first became manifest during his sophomore year in College, was encouraged and directed by Dr. Ives, then one of the best botanists of the country. He collected, as he once informed me, about a thousand species of plants. He studied Mineralogy and Geology; assisted Prof. Silliman in reading and correcting the proof-sheets of the botanical department of the *Journal of Science*, (a service which was continued after he became a practitioner,) and was always pressed with work. Some of his fellow-students thought he had too much on his hands; but I do not learn that he did imperfectly anything which he undertook.

In March, 1823, the subject of this notice received from Yale College his medical diploma. Almost immediately afterward, he married Miss Eliza Beers, a daughter of Dea. Nathan Beers, of New Haven, when he hired a house and opened an office in this city,* on the east side of State street, just above Court. At the New Haven County meeting, in April, 1823, he became a member of the Connecticut Medical Society, and was elected county clerk, which office he held five years.

Having consecrated himself to Medicine as a profession, Dr. Hooker devoted his whole soul to its cultivation. One so well qualified by previous training, so enthusiastic and untiring, could scarcely fail of success. He soon gained an extensive practice, his patients for a long time being mostly among the poor. He was indebted for his business not to wealthy and influential friends and connections, but to his own ceaseless endeavors—to his indomitable energy, constancy and courage. No man owed less to patronage and special favor. His practice began in the way that every young physician's should. He achieved success by hard work, personal sacrifice and self-reliance. Discouraged by no difficulty, shirking no needful labor, earnest, assiduous and patient, the victory was sure. Not many years had elapsed before he found

* This paper was prepared for the New Haven County meeting.

himself with an enviable reputation as an intelligent and skillful physician.

Dr. Hooker's social qualities prompted him to cultivate the acquaintance of medical men. In 1829, Dr. Tully became connected with the medical department of Yale College. Our friend sought his society, assisted him in the management of his affairs, and succeeded in winning his confidence. He was much impressed with the peculiar views of that extraordinary man; and there is evidence that his own opinions were modified, and to some extent shaped, by his intercourse with him. He did not, however, give up the right of independent thought—of conceiving and bringing forth ideas not taught in the College. After he himself became a member of the Faculty, and attempted some changes which were not relished, an intimacy of ten years was abruptly broken off, never to be renewed.

In the summer of 1832, that scourge of the East, the epidemic cholera, made its first appearance in New Haven. Dr. Hooker took a deep interest in the disease, and published an account of his experience in the Boston Medical and Surgical Journal for July 24th, 1833. The first twelve cases which came under his notice were treated with opium, calomel in frequent small doses, stimulants, irritants and external heat—the common practice. Six recovered and six died. The next twenty-one cases were managed in a different way. Calomel was given in large and frequent doses, commencing with twenty, forty or sixty grains. Subsequently, from eight to twenty grains were administered every hour, or at longer intervals, according to the severity of the symptoms. At the same time, small and frequent doses of tincture of camphor and pieces of ice were ordered, and heat and irritants applied externally. But calomel (given in dry powder and followed by a teaspoonful of cold water) was the sheet anchor. One patient took two hundred and sixteen grains in thirty-six hours, with the best results. Of the twenty-one cases managed in this way, nineteen recovered. The large doses of calomel, instead of producing a cathartic effect, allayed the vomiting and purging, and completely suspended peristaltic action, as proved by the application of the ear to the abdomen. If in six or eight hours intestinal motion was not resumed, mild laxatives were employed.

In the very beginning of his practice, Dr. Hooker commenced to investigate the diseases seated in the thoracic cavity. He sought

to know their nature, seat, diagnostic marks and mutual relations, and became a zealous cultivator of the arts of percussion and auscultation. Such progress had been made in these inquiries that, in the winter of 1832-3, he delivered, by invitation, a course of lectures to the medical class of Yale College on his favorite subject. November 27th, 1833, he published, in the Boston Medical and Surgical Journal, the first of a series of papers, running through several months, entitled "An Essay on Auscultation as applied to Cardiac Diseases, containing a new Hypothesis regarding the Sounds of the Heart." It was a most important essay on a subject then but partially understood, evincing patient and discriminating observation, and much practical skill. It established the author's reputation as a successful cultivator of medical science. His "new hypothesis regarding the sounds of the heart," attributed "the first sound to the occlusion of the auriculo-ventricular valves; the second, to that of the arterial or sigmoid valves." The views thus propounded are ably set forth, and are now, to a large extent, the accepted doctrine on that subject.* The theory offered was original with the author, and entitles him to the rank of a discoverer. It had been communicated to the medical class the previous winter, and to several physicians of New Haven; but, unfortunately, certain enquirers in Europe were at work in the same field of labor, and *published* before him explanations similar to his own.

In May and June, 1838, Dr. Hooker furnished for the same Journal, in parts, a pathological and therapeutical essay "On the Relation between the Respiratory and Circulating Functions." He contends that there are, naturally, about four and a half pulses to one inspiration; but that this proportion is often altered in disease. He points out the remedies which are calculated to remove infrequent respiration as connected with torpor, &c. It

* It is admitted that the second sound is produced wholly by valvular action. It is agreed too that the first sound is mainly due to a similar cause; but some contend that other influences are concerned. The weight of authority, however, is on the side of Dr. Hooker, and the valvular origin of both sounds is well nigh established. Dr. Dalton, who has written one of the best works of elementary Physiology, following the lead of Andry and others, contends that the first sound "is dependent altogether on the closure of the auriculo-ventricular valves," and that the difference of the two sounds is owing to "the different arrangement of the two sets of valves." 2d ed., pp. 253, 254.

is a most valuable paper on a subject which had then attracted little attention, and which at this day may be read with the greatest advantage. Indeed, I know not where else can be found thirty-five consecutive pages of equally valuable matter on the same subject.

Dr. Hooker was always fond of medical instruction. In the commencement of his practice, he usually had several private students in his office, who were faithfully and thoroughly taught in all the branches of the profession. After the death of Prof. Hubbard in June, 1838, and the transfer of Prof. Knight to the chair of Surgery, Dr. Hooker was appointed Professor of Anatomy and Physiology in the Medical Institution of Yale College. He was then pressed with professional business. The minute facts of Anatomy, and the names which were once familiar, had, to some extent, slipped from the memory. With insufficient time for preparation, his first course of lectures was delivered under embarrassments which even his energy could not wholly surmount. Ere long, however, his resolution and perseverance overcame his early difficulties. One of his temperament and talent could not well fail of substantial success.

In February, 1840, Mr. George Combe, the distinguished phrenologist, then on a tour through the States, visited New Haven. Dr. Hooker showed him every civility, attended his lectures, and is understood to have been a disciple. He was not, however, content to believe without explanations. On one occasion the doctor took to his friend a healthy man, through the centre of whose frontal bone the breech pin of a gun had been driven several years previous, penetrating the brain to the depth of two inches or more, without disturbing the intellectual faculties either before or after its removal—whereat the phrenologist was much amazed. The man died some years afterward of a disease not connected with the injury. The perforated frontal bone is now (or should be) in the Medical College.

From an early period, Dr. Hooker was accustomed to use the ear in investigating intestinal diseases. In April, 1847, he read, at the New Haven County meeting of the Connecticut Medical Society, a very interesting paper entitled "An Essay on Intestinal Auscultation," which was afterward published in the Boston Medical and Surgical Journal. In this essay he states that he used the stethoscope in the cholera of 1832, and derived from it

useful information as to the progress of the malady, and the effects of remedies. According to him, a suspension of the direct peristaltic movements is the most important symptom of lead colic and common colic, a restoration of these movements affording the best evidence of approaching speedy recovery. Says he, "This cessation of peristaltic action, I may confidently assert, is the chief essential character of colic; the motion being suspended before the occurrence of the violent symptoms, and not returning until the disease is about to yield." In dysentery, he observes, the peristaltic action, as indicated by the sounds, is irregular—"some times morbidly increased, but more commonly diminished." In other cases, it is wholly suspended. In the proper management of cathartic medicines, much assistance may be derived from auscultation, &c.

One more publication remains to be mentioned. In May, 1855, Dr. Hooker presented, by appointment, to the American Medical Association, a "Report on the Diet of the Sick," which was published in the Transactions of that year. It occupies forty-six pages, and contains the peculiar views of the doctor on several interesting subjects. Filled with important observations and original matter, it should preserve the author's name from soon perishing. He notices some of the common errors of diet, and condemns with characteristic earnestness the habit of excessive water-drinking. He thinks that many diseases—cholera infantum, dropsy, urinary disorders of old men, scrofula, phthisis, dyspepsia, &c.—are, to a large extent, caused by this injurious habit. Women who drink excessively during pregnancy, are apt to have dangerous flooding at their confinement. The cases of purpura hemorrhagica, "seen in very young infants, have always been traceable to an inordinate use of drinks by the mother." "Solid food," claims the doctor, in another place, "should constitute the greater proportion of the diet;" and this should "consist of both nitrogenized and non-nitrogenized aliment." An insufficient use of fat meats or other oily matters—of "calorific nutriment"—is a common and most pernicious error. "It bears to the scrofulous diathesis the double relation of effect and cause." "Of persons dying with phthisis, between the ages of fifteen and forty-five, nine-tenths, at least, have never used fat meat." The efficacy of cod-liver oil, in consumption, is thought to be due to the calorific aliment which it provides. This whole subject was a favorite one with the

author, and had engaged his attention for many years before the printing of his "Report."

Food, the doctor further remarks, should be taken at regular intervals—about thrice in the twenty-four hours. This rule applies to all, whether sick or well, men, women and children. In fever, it is vitally important to keep up the habit of regular eating. No matter though the stomach loathe food, it should be persistently taken. Perseverance will overcome repugnance, and the appetite be soon restored. Solid food requiring mastication—at first a dry cracker and afterward a little meat—is preferred. Out of one hundred and ninety-five cases of fever treated by the writer (between July 1st, 1852, and January 12th, 1855) on this plan, with "three meals a day," only eight died.

Dr. Hooker was what may be called a bold practitioner. He had a fondness for active medicines, and used them, in fitting cases, efficiently. He gave calomel in unaccustomed doses in croup, Asiatic cholera, &c. He prescribed the tincture of digitalis in delirium tremens, in the quantity of half an ounce or more at bedtime. Hoping to break up the disease, he employed the sulphate of quinine with freedom in the commencing stage of common continued fever. But, generally, he used drugs in the ordinary doses. This was the fact with iodide of potassium, which he gave for hydrocephalus and dropsy; with nitrate of silver, his great remedy for flatulence and tympany; with chloride of gold, with which he treated scrofulous diseases, ovarian tumors, ascites, &c. It is an error to suppose that, in ordinary instances, he used more or stronger medicines than many other physicians. Few selected with more care and judgment the cases which were to be managed in the "heroic" way.

After his appointment to the chair of Anatomy, Dr. Hooker gave much of his attention to Surgery, and in the last years of his life became widely known in this branch of his profession. He introduced to his practice "the modern improvements," and "kept up with the times." As an operator, he was safe, quite imperturbable, and usually successful; but he was not adroit in the use of instruments. A great surgeon must have not only manual dexterity, but invention and mechanical genius, neither of which Dr. Hooker possessed.

Endowed with a capacity for original thought and observation, Dr. Hooker was not content to travel forever in the old paths,

particularly if better ones could be found. He was constantly in search of some new and improved way of arriving at a desired result. His patience in observation, and the accuracy of his perceptions, gave assurance of success in his search for truth. His method of inquiry was to select a few subjects or objects on which he concentrated his attention. These were alway in his mind waiting to be investigated. He talked, lectured and (doubtless) dreamed about them. Nature was interrogated, phenomena analyzed, and information sought for unintermittingly, till the sources of knowledge were exhausted. In this way, many facts which had been overlooked, and others which were quite new, were brought to light. Proceeding in this manner, an observer so acute, so indefatigable, could not fail to make important discoveries. He pursued the method which genius ever follows when applying itself successfully to scientific pursuits.

Dr. Hooker did a very large business as a physician and obstetrician. As a practitioner, he was vigilant and faithful; as a professional associate, manly, truthful and trust-worthy. Indefatigable as a worker, whatever he did was done thoroughly and well. In diagnosis, he was particularly skillful, and was much consulted in thoracic affections. Cheerful, confident and hopeful, he inspired his patients with similar emotions. If words of encouragement were given which facts did not warrant, it was because he deceived himself. Some persons did not like his manner, with others he was popular. To the poor, he gave his services ungrudgingly. If I mistake not, there never lived in New Haven a physician who did so much business without compensation. He contracted a friendship for those families he had long attended, and would not desert them because their means of payment were exhausted. He not only gave his attendance, but contributed in other ways to the wants of the afflicted. In truth, his heart was naturally kind, his instincts generous.

Thinking his own opinions better than those of others, Dr. Hooker adhered to them unflinchingly; but he did not do it in an obstinate or intolerant spirit. Conceiving his views to be just, he must, as an honest man, uphold them. He was one of that class who are accustomed to *believe* in earnest. He believed in his profession, in the power of medicine, in the stethoscope; believed in "chloride of gold," "fat meats," and "three meals a day;" be-

lieved in his horse, his grapes* and himself. And whatever he believed he would defend. He could listen to your facts; might attend to your reasoning patiently; but he would not be laughed or cheated out of his convictions. Though supposed to be a little crotchety, he was not an unreasonable or impracticable man. We seldom meet with one so zealous, and at the same time so liberal. He may have had a large faith, but could not be called credulous. The fashionable "isms" and "pathies" of the day, including charlatanry of every sort, he denounced and despised. He had his ruling ideas; was somewhat given to hobbies; but he rode skillfully, as all agree, and managed the bit himself. Though some physicians were accustomed to smile at the persistency with which he urged his peculiar views and methods of treatment, these were very generally and favorably received, particularly among the younger members of the profession. His chosen remedies and favorite modes of management are now in common use in this section of the State. Perhaps his opinions modified the practice which prevails to-day, more than those of any man who has lately lived among us.

Dr. Hooker gave his whole time to his profession, and was practical in everything. Having no taste or talent for speculation, he did not waste his own time or that of others with unprofitable theories. He read as he had opportunity, sometimes to acquire knowledge, but oftener to confirm or illustrate his settled convictions. Everything which involved the good of his patients, or his pupils, interested him; but beyond this he cared not to go. He was not learned above others, and did not give much time to questions or studies outside his profession. Still, he was generally well informed, and wrote like a scholar and man of taste. As a teacher of human Anatomy, he was thoroughly qualified; faithful, attentive to students, and punctual to his engagements. An able instructor he certainly was; but as a lecturer, I dare not name him in connection with his inimitable predecessor, Dr. Knight. He was not eloquent; his attitudes were not graceful; his tones not always pleasant. His spoken was not as good as his written lan-

* He discoursed as fondly of the good qualities of his horse (an intelligent but not graceful beast) as he did of his favorite medicines, and modes of practice. The charge that the animal was a little lame, was repelled with earnestness. In grape culture, the doctor was very successful.

guage. Though a little clumsy as a demonstrator, he never failed to make himself understood. He was always earnest, explicit and convincing.

In person, Dr. Hooker was of a medium height and size, straight, quadrangular in form, with a square, clean-shaven face, compressed lips, large prominent hazel eyes, a small, round, but well proportioned head and dark hair. He was plain in dress; wore a white cravat tied in front, with a formidable shirt collar, and loose, ill-fitting garments. In walking, he moved with a short, quick step and bustling air. If at rest, he seemed uneasy, perhaps fidgety. When his mind was intently occupied, his eye kindled, and there was a notable and characteristic starting, or jerk in his movements. This was observed in his operations, and sometimes gave needless alarm to those not acquainted with his manner.

Dr. Hooker died March 19th, 1868. His funeral was attended by a very large assembly of heart-stricken mourners.

BIOGRAPHICAL SKETCH OF
JONATHAN KNIGHT, M. D.,

LATE PROFESSOR OF SURGERY IN YALE COLLEGE.

BY PROF. WORTHINGTON HOOKER, M. D.

JONATHAN KNIGHT, M. D., was born in Norwalk, Conn., September 4th, 1789, and died August 25th, 1864. His father was a physician, and so, also, was his grandfather, on the mother's side. At the age of fifteen he entered Yale College. After his graduation he had charge of an Academy at Norwich, Conn., for two years, and then was appointed tutor in the College. While he officiated in this capacity, he pursued his medical studies. At this time the plan of a Medical Institution, in connection with the College, was determined upon, the celebrated Dr. Nathan Smith, who was then in the fulness of his fame as a practitioner of both medicine and surgery, being designated as one of its professors. Mr. Silliman was then professor of Chemistry in the College, and he suggested (as he stated to the writer of this notice in a conversation the day before his death) that young Knight, then only twenty-one years of age, had all the qualifications necessary to make a good professor of Anatomy, after due preparation for the work. The suggestion was followed out, and to effect this preparation, Dr. Knight spent the winters of 1811 and 1812 in Philadelphia, in attendance on lectures and in prosecuting dissections. In 1813, the Medical Institution of Yale College was organized, and Dr. Knight occupied the chair of Anatomy and Physiology till 1838, when, on the death of Dr. Thomas Hubbard, he was transferred to the chair of Surgery, which he filled to the last year of his life.

It was a great gratification to the friends of Dr. Knight, in his advanced age, that his mental activity was entirely unimpaired, and that he was able to attend fully to the duties of his profession

up to his last sickness. Those who heard his last course of lectures saw no abatement of his usual mental vigor and freshness.*

Dr. Knight was eminently successful, both as a practitioner and teacher, and it will be profitable to consider the mental and moral qualities which were the foundation of this success.

He was but to a small extent an originator, and was not generally adventurous either in thought or action; and yet he was not at all inclined to routine, but was an active and independent thinker. His opinions were his own, and he was no retailer of the views of others. He was a conservative in the best sense of that term, being very sure not to lose hold of established truths in the pursuit of glittering novelties. Settled principles and ascertained facts had a sort of sacredness with him in comparison with suppositions, however plausible they might be, and he applied to every new doctrine or statement the most searching tests. He had extraordinary mental clearness, and all his knowledge was set in order in his mind. Good sense, in its largest and highest meaning, was his most prominent characteristic, resulting from a beautiful balance of his mental powers. Perhaps some who have a fondness for bold views and adventurous thought, would say of him, as was said for similar reasons of Washington, that he had no genius; but in either case the aggregate of mental force was great, and produced great results—the greater from the harmonious adjustment of the elements of that force, and the moral power which always presided over its action. This moral element was very conspicuous in Dr. Knight. It was not merely enhanced by religious principle, but was based upon it. It gave a calm dignity and a mild *radiance*—no other word so well expresses it—to the influence which he exerted upon the opinions and feelings of others. His personal appearance and manner had much to do

* Dr. Knight died of peritonitis, produced by stricture in the rectum, as was shown by the fact that the traces of inflammation were strongest in the neighborhood of that difficulty. The stricture was at a point about one-third of the length of the rectum from the colon. The intestine was much thickened at that point, and the passage was too narrow to admit the little finger. It was undoubtedly from the gradual production of this stricture that Dr. Knight was entirely dependent on medicine for the evacuation of his bowels for a long series of years before his death. From some indications at the beginning of his sickness, which was of about ten days' continuance, it is supposed that the gout, from which he occasionally suffered, had something to do with the attack.

with this influence, so much, that we may say, that any one of ordinary sagacity would, on first seeing him, get a correct impression of his mental and moral character. There was in him an uncommon correspondence between the outer and the inner man.

Possessed of these qualities, it is not to be wondered at that he should have won so largely the confidence of the community as a practitioner. His conclusions came with authority to both patient and physician, though no man was farther than he from the assumption of authority. Though he held so exalted a position as counselor, he was never tempted into any improper exercise of power, or any display which should dazzle the public eye. He bore his honors modestly. His practice as a surgeon was eminently conservative. There is a glitter of the surgeon's knife, as well as of the sword, tempting to rash acts, but it had no attractions for him.

Perhaps there has been no man in the profession, who was a more thorough student through life than Dr. Knight. Especially was he familiar with the literature of surgery, and he was therefore often able to refer some vaunted new improvement or doctrine to a prototype in the past, sometimes not merely resembling the supposed novelty, but identical with it. It is to be remarked here that his reading was by no means restricted to medicine, but took a wide range, even embracing the lighter literature of the day, the selection, however, in this case being a very strict one. He had, therefore, none of that narrowness of intellect which inevitably results from a confinement to purely professional channels; but there was broadness of view and richness of comparison and illustration in all his mental efforts. This extensive literary culture also contributed to that power of expression, which so distinguished him both in conversation and in public speaking.

The qualities which have been depicted were all brought out prominently in the performance of his duties as a lecturer. His thoughts had a transparent clearness, and were arranged in just the order best fitted to enter the minds of his pupils; his language had a terseness and elegant simplicity rarely equaled; his comparisons and illustrations were exactly adapted to the points aimed at; and his descriptions were so graphic that it was actually like seeing the things that were described. But there were higher elements of success than these. The hearer was impressed with a sense of the completeness of the lecturer's knowledge of the subject, and with his love of the exact truth even in minute

matters. And, besides this, his mind was wholly absorbed with the subject in hand, giving him an enthusiasm which did not fail to be communicated to the audience. The manner of the man, too, was an essential part of the lecture—so much so, that no report of it, however full and accurate, could give anything like an adequate idea of it to one who had never heard him. The effect produced upon the audience was the result of a combination of influences harmoniously coöperating. Matter, style, person, voice, manner, and, we may add, character, all contributed, and each in its proper way. And here we have the explanation of the fact that none of his few published efforts exhibit that consummate power which he had as a lecturer. Some of the elements are absent that are necessary for the full effect. The man is not there, and the audience is not there from whose presence he received some of his inspiration.

From what has been said, it is readily seen how Dr. Knight, to so great an extent, moulded the minds of his pupils. He has in this way exerted a vast influence in his fifty years of labor as a professor upon the character of the general medical mind of this country.

Dr. Knight was naturally a diffident man, and experienced much embarrassment from this source (as many of his early pupils testify) in the first part of his career as a lecturer. He told the writer of this notice that at that period he on several occasions walked off into the fields to be far away at the hour of lecture, from reluctance to meet his class. Even of late years, signs of this diffidence have appeared when some new and unexpected circumstances arose. If, for example, any physician chanced to appear among his auditors, he would manifestly lose some of his usual self-possession, because, as he was lecturing to students, he felt that there was an incongruity between his lecture and at least one of his audience. And it was interesting to observe how he would now and then regain his composure through the absorption of his mind in the subject.

Dr. Knight was twice President of the American Medical Association, and the manner in which he presided over its deliberations was the subject of such universal admiration that he was very often chosen to preside in Committee of the whole. His success in this capacity has been by some attributed chiefly to his acquaintance with parliamentary rules. But this is a mistake. He told

the writer that he was, to a great extent, ignorant of these rules, and that he simply applied the plain principles of common sense in acting as a presiding officer. It was the clearness of his mind, his good sense, his calm dignity of manner, his personal appearance, all combined, that gave him his power over the assemblies of his fellow-men. Even when his decisions were technically wrong, as they sometimes were on small points, the audience had such confidence in him that those who knew so much of parliamentary rules as to see the technical failure, let it pass, because they thought it vain to resist the full tide, or they partook so much of the general feeling that they were half persuaded that their own opinion was erroneous.

The same clearness of view which Dr. Knight had on ordinary subjects, he had also on the most important subject that can engage the mind of man, and through a long life he pursued the even tenor of his way with a firm faith, living as seeing Him who is invisible. In his last moments, as his pastor, Dr. Bacon, spoke of salvation through Christ, he said emphatically, "I can look nowhere else. If this is not true, there is nothing true"—a declaration indicating the clearness and definiteness with which his mind was established on that subject, and therefore eminently fitting for the close of a life marked throughout by a love for exact and well-proved truth.

BIOGRAPHICAL NOTICE OF

AUGUSTINE J. WEBSTER, M. D.

BY S. W. TURNER, M. D.

AUGUSTINE J. WEBSTER was born in Sandisfield, Berkshire County, Mass., on the 28th of October, 1835. In early childhood left an orphan, he lived for three years with his paternal uncle, a very worthy man, distinguished for his piety, temperance and strict integrity. From him the subject of this sketch imbibed those principles which were so prominently exhibited in his after life. Possessed of a feeble constitution, he was poorly fitted for the trials and difficulties which beset him in his earlier years ; but with eager desires after knowledge, by diligence and application, he was enabled during boyhood to master the rudiments of an English education.

At the age of fourteen he went to Norfolk, Conn., to live with Dr. William Welch, a physician of skill and celebrity. In Dr. Welch he found a friend and benefactor. From him he received encouragement and guidance, in carrying out his cherished plans. It was here that he determined to devote his life to the study and practice of medicine.

That he might enter upon the study of his profession intelligently, he spent some time at the Academy in Norfolk, and at the American Seminary in Dutchess County, New York, paying his expenses by teaching school winters.

After thorough preparation, he went to Pittsfield, Mass., attended two full courses of lectures under the direction of Dr. Childs, and graduated with the highest honors of the Institution. He then commenced practice at Brookfield, Connecticut, moved thence to Manchester in the spring of 1859, where he practiced till his removal to Killingworth in December, 1861. Here he

lived for a little more than two years, entirely devoted to the duties of his profession, and secured in a wonderful degree the respect, esteem and confidence of the community.

He died on the first day of January, 1864, of erysipelas. The disease had for a week been upon him, in the form of a severe headache, which he heeded not, but with characteristic zeal continued his labors, and only forty-eight hours before death, came home from a long ride, and threw himself on the bed from which he never rose again.

He died at the age of twenty-eight, leaving a young wife and a child of two years, to mourn his loss. Thus early was our friend cut down, in the morning of what promised to be a career of more than ordinary usefulness. Enthusiastically devoted to his profession, strictly temperate in his habits, kind and affectionate in his disposition, with sound judgment, cool head, warm heart, and strong nerve, he was stricken down, and we can only bow in humble acquiescence to Him whose "judgments are true and righteous altogether."

Dr. Webster's tastes led him to the study of the natural sciences, in which he was a proficient. His influence over the community was always exerted for good; encouraging the young men in their lyceums, giving lectures as occasion offered, and striving, by enlightening the masses, to elevate them; thinking, and truly, that ignorance and quackery always go hand in hand. His library was well selected, and his mind well stored with those great truths which he knew how to apply in practice. As a surgeon he was skillful, and he furnished himself richly with the best instruments, and with all those appliances which are daily coming into use to relieve and heal the diseases to which flesh is heir. But not youth nor skill, nor love of his profession, could save him from the destroyer. The youngest of our number, save one, he died.

"So flits the world's uncertain span."

And though it be "a fearful thing to die,

Yet the dread path once trod,

Heaven lifts its everlasting portals high,

And bids the pure in heart behold their God."

BIOGRAPHICAL SKETCH OF
GIDEON F. BARSTOW, M. D.,

BY SAMUEL HUTCHINS, M. D.

GIDEON FORRESTER BARSTOW, son of Hon. Gideon Barstow, was born in Salem, Mass., December 23d, 1815. Died June 5th, 1864, aged forty-eight years, five months and twelve days.

He entered the Sophomore class at Harvard College at the early age of fourteen years, and went through the regular course of study. Soon after graduating he commenced the study of medicine with Dr. Pierson, of Salem, Mass., and subsequently, for the purpose more especially of attending to surgery, with Dr. Walker of Charlestown, Mass. At a later period he attended the medical school at Philadelphia, and afterward at the University at Cambridge, where he received his diploma in the year 1837. He commenced practice in the city of New York, in company with Dr. Meade. But after some seven or eight years, his health failing him, hoping by change of climate to restore it, he removed to his native town of Salem, where he succeeded his father, who had for many years practiced there. His labors there, however, proved too much for him, and after a long and severe illness he yielded to the advice of his friends, and gave up the medical profession for a time, engaging meanwhile in that of civil engineering, hoping that constant exercise in the open air and relief from the heavy responsibilities necessarily attendant upon the physician's life, might restore his health.

After a few years he found himself quite well and strong. He returned to his early profession, re-commencing practice August, 1859, at Putnam, Conn. He possessed great fondness for his profession, for which he was eminently fitted, but his temperament was too highly sensitive and nervous to permit him to enjoy it without injury to his health. Though as successful as could be

expected in so limited a field, it was soon evident that his health was again failing.

He suffered exceedingly at times from neuralgia and rheumatism, which he supposed he inherited from his father. On the occasion of a visit to his mother in Boston, in May, 1864, after suffering from neuralgia and general debility, many of his friends, and among them Governor Andrew of Massachusetts, endeavored to persuade him to leave Connecticut, where his health was becoming so evidently broken. Very soon after his return to Putnam he was summoned to Boston to receive his appointment as surgeon in the United States Army, to be stationed at Fort Warren, in Boston harbor.

He proceeded at once to that place for the purpose of accepting the appointment, and making such arrangements as should be necessary, intending after a short time to return to Putnam and close up his business there, preparatory to entering upon his new duties. Finding it necessary, however, to assume them immediately, the former surgeon in charge having left at once, he delayed for a few days his return to Putnam, until he should have taken the business well into his own hands. He left his mother's house in Boston for Fort Warren, June 2d, feeling quite well and in fine spirits, hoping and expecting that he should receive great benefit to his health from the bracing sea air, light duties, and congenial surroundings.

On the following day he received intelligence of the sudden death of his youngest brother, at Newbern, N. C., which agitated him exceedingly. On the next day, Saturday, he wrote a short note to his mother upon this affliction, closing it thus: "We must try to be comforted by the thought that our brother died nobly in a good cause, remembering that Death always comes in the right time."

He retired to rest that night, so far as is known, as well as usual, but alone, in the silent hours of night, his spirit passed into eternity.

Of the purity of his motives, and the kindness and gentleness of his heart, of his high attainments as a scholar, of his fidelity and forgetfulness of self in his devotion to the interest of the sick committed to his care, of his zeal and earnestness in the cause of the *Union and the right*, and of his character as a gentleman and Christian, all who knew him can bear full testimony.

BIOGRAPHICAL SKETCH OF

JOSEPH OLMSTED, M. D.

BY M. L. FISK, M. D.

DR. JOSEPH OLMSTED, the subject of this sketch, was born at Enfield, in this State, December 31, 1820, and died at Warehouse Point, August 9, 1864. He was the youngest child of Joseph and Dorothy Olmsted, one of the oldest and most respectable families of that ancient town. After receiving the best education the public schools of the town afforded, he entered the Academy at Westfield, Mass., where he pursued the study of Languages, and the higher branches of Natural Philosophy and Mathematics. He pursued the study of medicine the usual time, attending two full courses of Lectures at the University of New York, where he received the degree of M. D. in March, 1843.

He commenced the practice of his profession in Nyack, N. Y., where he remained only a few months, when upon the death of Dr. William Daniels of Warehouse Point, he located in that place in February, 1844. Here he soon obtained the favorable opinion of the community, and rapidly acquired a good practice; which he retained with increasing confidence until his decease. He possessed a remarkably well balanced intellect, sound judgment, clear perception, and a retentive memory; was a ready talker as well as an excellent listener; with large experience, and an extensive acquaintance with prominent members of the profession. His professional attainments were of a highly respectable order. Self-possessed, deliberate and comprehensive in his observations, and with strong powers of discrimination, he was a safe, judicious and successful practitioner; and, as an obstetrician, was entitled to a high rank in the profession. His practice was large. In his intercourse with his professional brethren, he was cordial, frank and confiding, always manifesting a commendable regard for the honor

and welfare of the profession, and the harmony of its members. It was chiefly through his efforts that the "Hartford County North Medical Association" was organized, and he always took deep interest in its discussions.

He was elected a Fellow of the Connecticut Medical Society in 1856.

On public affairs, both state and national, Dr. Olmsted was well informed. He was frank and decided in the expression of his views on all proper occasions. Much against his own wishes, he was elected to represent the second Senatorial district in the Legislature of 1853; and at the close of the session he received the appointment of Postmaster at Warehouse Point, which office he held for eight years.

Affable in his temper, cordial, unpretending, and easily approachable in his manners, he was steadfast in his friendships, social in his habits, generous in his hospitalities, prudent in the management of his affairs, honorable in all his dealings, and free from envy or jealousy.

He was married June 2, 1852, to Miss Sarah M. Barnes, daughter of the Hon. William Barnes of Warehouse Point. They had four children; two sons died in infancy, and two daughters, with their mother, are still living. Dr. Olmsted was not a communicant of the Church, but gave liberally for its support, and attended its services whenever professional duties would permit.

He died suddenly, of malignant erysipelas, in the prime of manhood, at the early age of forty-three, in the full tide of successful practice.

The large concourse of people from the surrounding cities, towns and villages, crowding the church and its approaches at his funeral, including a large number of his professional brethren, by whom he was borne to his last resting place, was an eloquently mournful expression of the kind regard in which he was held by his extensive acquaintance and the public generally.

BIOGRAPHICAL NOTICE OF

N. M. TRIBOU, JR., M. D.

BY ORRIN E. MINER, M. D.

N. M. TRIBOU, JR., M. D., the son of a highly respectable farmer, was born in Middleboro, Mass., September 1st, 1833. At an early age he was placed at the Pierce Academy, where, in due time, he was fitted for College. He entered Brown University in 1853, where he remained till 1855. Having the study of medicine in view, and desirous of being graduated an M. D. at an early date, he abandoned his classical course and pursued that of medicine closely and devotedly under the guidance of W. W. Comstock, M. D., of Middleboro, Mass. The year following we find him a student at the Jefferson Medical College, also the winter succeeding, at the same institution, zealously prosecuting his professional studies. He received his degree at the spring Commencement of 1858. He returned to his native town, and was married to Miss S. Agnes Comstock, daughter of his former preceptor, commenced the practice of medicine with his father-in-law, remaining, however, only about a year, when he removed to Mystic, Conn., where he spent his few remaining years. Died November 29th, 1864, of perforation of the bowels, aged thirty-one years, two months and twenty-seven days.

Very few young medical men have been as highly esteemed by all who knew him, both in and out of the profession, as was Dr. Tribou. He was honorable in character, courteous in manners, amiable and affectionate in all of his relations in life. Said one of his medical attendants, who was with him during the last hours of his life: "Much as we loved this young man, for his worth of character, his high and laudable aspirations, his steady and unfaltering aim to make himself useful in his profession which he loved and honored, from our hearts we can say, better even

thus, than to have been a *drone*, and lived his three score years and ten, to leave no record of his work behind.

"Flushed with professional success, surrounded by his young family, and a large circle of friends whom he loved, in almost daily contact with educated gentlemen of his profession, whose friendship he reciprocated and whose council he shared. And amidst all these surroundings the fell destroyer came, and he yielded with a calm submission to his fate."

Dr. Tribou was elected a member of the New London County Medical Society in 1860, and Clerk in 1862, which office he held till April, 1864. Was elected as one of the Fellows to the State Convention in 1862-3-4, respectively.

He leaves a wife and two children, a son and daughter.

The citizens of Mystic, at a special meeting held December 6, 1864, passed resolutions expressive of the high esteem in which he was held by them. Similar resolutions were adopted, and a eulogy pronounced by Dr. John Grey, of Mystic River, at a regular meeting of the Lodge of Free Masons, of which he was a worthy member.

BIOGRAPHICAL SKETCH OF

HORATIO GRIDLEY, M. D.

BY E. BRANDEGEE, M. D.

DR. HORATIO GRIDLEY was born in Berlin, (Kensington Society,) September 10, 1792. His father, Amos Gridley, was a thriving farmer. After the primary instruction of the district school, he became a pupil of Dr. Benoni Upson, the clergyman of the Society. He afterwards finished his studies, preparatory for college, with Dr. Joab Brace of Newington, and entered Yale College in 1811. He graduated in 1815, and immediately began the study of Theology at Andover, Mass., but after six months he had hemoptysis, and other threatening symptoms of confirmed pulmonary consumption. He was thus compelled to relinquish his favorite study. The state of his health, and a mind disposed to enter deeply into subjects that interested him, led him, at this period, to the study of medicine. He began with Dr. Samuel B. Woodward of Wethersfield, attending medical lectures at New Haven, and there graduated in 1820. He began practice in Woodbury, where he continued six years, and then removed to Berlin. Here he remained twenty-five years, in the constant practice of his profession. In 1851, he gave up his work on account of an increasing general failure of muscular power, particularly in the extremities, and removed to Hartford. Here he lived until November 9, 1864, when he died of paralysis, after confinement to the house nearly two years.

Dr. Gridley was married December 9, 1823, to Mary Welles, daughter of Leonard Wells, Esq., of Wethersfield. She survives him. They had four children—Horatio W., born July 3, 1826. He graduated in arts and also in medicine at Yale College. He was a young man of much promise; became a physician in Bellevue

Hospital, where he died of ship fever, March 29, 1851; a daughter, Mary, born December 12, 1833, died February 27, 1850; James, born November 10, 1836, died in infancy; Henry R., born November 29, 1830, survives, and is in business in Hartford.

Dr. Gridley will be remembered as a judicious, prudent and very faithful physician. In ordinary complaints, such as have naturally a favorable termination, he was severely simple in his practice, not seeking to amuse or astonish the patient or lookers on; but in cases that were serious, he was bold and thorough in his medication. He was remarkably a man of good judgment in all matters. This gave him the confidence of his patients and their friends in the sick room, and he likewise enjoyed the good opinion of the people in their private and public affairs. With singular felicity of mind, he turned his attention to various subjects. He had a good acquaintance with the ordinary legal forms and usages, and was generally selected for Justice of the Peace. In 1843 he was senator for the First District, and honorably fulfilled the duties of that station. His report, as Chairman of the Committee on the Insane Retreat, was a convincing exhibit of the importance of the State appropriation for the insane poor, which has since been continued, and has been so eminently beneficent.

Dr. Gridley was familiar with the natural sciences that concern the medical man, particularly in their practical use. The culture of trees and plants was a subject of great interest to him. The early history of the town occupied his attention. An account of the first settlement of the "great swamp" in the northwest part of the town is extant, and circulated in manuscript.

From his younger days, he was a consistent member of the Congregational Church, and always, by word and deed, was a firm supporter of every good object in society.

The profession is honored by the lives of such good and faithful members, and the living derive a pleasure in making mention of their virtues.

BIOGRAPHICAL SKETCH OF

CLARENCE MELVILLE BROWNELL, M. D.

(*Written by a Brother of the deceased.*)

DR. CLARENCE MELVILLE BROWNELL was born May 2d, 1828, at East Hartford, in which town his father practised surgery and medicine for more than twenty years. He studied in the medical schools of Pittsfield, Woodstock, and New York, and, having received his diploma before attaining his majority, commenced the practice of his profession at Wawatosa, Wisconsin.

Besides being a faithful, resolute, and industrious student, and practitioner of his profession, he was an ardent and most accomplished naturalist in several branches—botany, however, being his favorite specialty. His collections, particularly those illustrating this science, were numerous and valuable, and he had exchanged specimens with distinguished collectors in Europe.

From the age of twelve or fourteen he had steadily pursued the study of the profession that he so early selected, together with the natural sciences intimately associated with its theory.

After about a year spent at Wawatosa, he returned to his native town, and devoted himself assiduously to the duties of his profession until the year 1859, when he abandoned it to enter upon that course of travel and exploration which occupied the last three years of his life.

As a physician and surgeon, he was eminently successful. A sound and quick judgment, readiness of resource, a firm and composed temperament, a kind and sympathizing heart, and a pervading cheerfulness of manner and disposition, combined to render him a useful and acceptable minister to the sick and suffering. His very presence gave new life and hope to the weary and despondent victims of disease or injury. The personal attachment generally felt towards him by his poorer patients, best attests his kindness and benevolence.

The summer of 1859 was passed by Dr. Brownell in travel through portions of the British Provinces, and in the interior of Maine. He visited Newfoundland, Cape Breton and Canada, eagerly availing himself of every opportunity for extending his knowledge of nature—human or material.

On the ninth of November following, he took passage on the clipper ship *Corinne*, from New York to Callao, Peru. After spending some time in examining the antiquities of Lima and its environs, he proceeded to Truxillo, and there associated himself with a small party, whose intention was to cross the Andes, strike the head waters of the Amazon, and follow that river to its mouth. The party separated before entering on the journey through the wilderness, and Dr. Brownell found himself alone at Chachapoyas, the last considerable town or village on his route to the river. Before reaching this place, he suffered no little hardship and exposure in the passage of a dry desert between the mountains and the sea. About half way across this arid plain, his horse fell down and died, and he was obliged to pass the night on the ground, without water.

At Chachapoyas he received a dangerous injury. When mounting his mule, the animal suddenly plunged, and the doctor was thrown to the ground, striking his head heavily on the stone pavement. By this contusion the skull was broken in, a little above and behind the left ear. There was no surgeon in the place competent to perform an operation for his relief, and a permanent depression, after entire recovery from constitutional disturbance, attested the severity of the blow.

Dr. Brownell, in his own journal, remarks that he felt fully convinced that he should never rise again from the couch to which he was assisted at the time of the injury; yet, strange to say, in less than a fortnight he was pursuing his solitary journey eastward.

For a distance of about two hundred miles the passage of the mountains was performed on foot, his baggage being carried by Indian guides—the nights passed in the open air. After striking the navigable waters of the Marañon, he procured a canoe and paddled by Indians, made his way through the wilderness to the head of steam navigation. From respect to his scientific researches, the government authorities furnished him with free passage down the river to Pará.

At this port he was prostrated by a severe attack of the fever

of the country, from the effects of which he probably never entirely recovered. A violent cough, supervenient upon the fever, troubled him for some months, and, even during the summer following, recurred at intervals, after any unusual exposure.

From Pará he sailed for the West Indies, visiting several of the Islands, and taking the steamer at Havana for New Orleans. The winter was passed in Western Louisiana. He returned to New England in the spring of 1861, about the time that the war broke out.

At this period he was eager to enter the service of his country, and applied for employment in the army. Failing to obtain it, he again turned his mind to travel, and started on his long last journey to the East. Only the day after he sailed came the offer of a captain's commission, of which, to his deep regret, he only learned when in the Mediterranean, and long too late for accepting it.

During the summer of 1861, spent at Bristol, R. I., Dr. Brownell applied himself to the study of Arabic, as a necessary preliminary to travel in the East. He sailed for the Mediterranean in the following autumn. After visiting Malta and Sicily, he reached Alexandria, and was there received with great kindness, by the United States Consul General, Mr. Thayer. He rode from Alexandria to Cairo alone, on a fine Arabian horse, a present from the Viceroy to Mr. Thayer, and, after visiting the Pyramids and other objects of interest, took passage, with some friends, up the Nile. In this cursory sketch, it is impossible to do justice to the persevering spirit of research, the keen appreciation of beauty, and the hearty and kindly sympathy with the poor and afflicted, that shone out in every page of his most interesting diary.

At Khartoum, situated at the junction of the Blue Nile with the White Nile, Dr. Brownell joined the exploring expedition under Mr. John Petherick, in the capacity of botanist. His journal from this point has never reached his friends in America. Among his effects, forwarded by the American Consul, is an original map of the White Nile, from the mouth of the Gazelle River up to latitude six degrees fifty-five minutes (nearly,) at which point his last entry of the day's journey was made on the 12th of May, 1862. A botanical description of the river banks also accompanied the map.

A letter has been recently received from Dr. James Murie, of Glasgow, physician to the expedition, and the only European present at the time of Dr. Brownell's decease, giving an account of the particulars of his last illness. The fever which carried him off was brought on by long hunting expeditions on foot, through the tall wet grass of those marshy regions. Over-confident in his own powers of endurance, he neglected to change his clothes after such excursions.

The following passages are selected from the narrative forwarded by the kind friend and companion, who watched over him to the end. After describing the symptoms and rapid progress of the disease, Dr. Murie proceeds:

"I could see a wonderful difference in him; he felt himself perfectly prostrated, yet was perfectly clear in mind; told me all his requirements, and reasoned with me on the probable issue of his illness. But one night did he wander slightly in his thoughts. Distinctly, solemnly, nay beautifully, did he give long quotations from several of the best poets, among others some pretty things from Longfellow. He astonished me also by repeating at great length, Hamlet's soliloquy.

"He calmly stated his fears, saying, when I tried to cheer him, 'No, no, Murie, my strength won't last.' Too true this was, for on the next morning the stamp of death was on his countenance. He feebly uttered, 'I am going; nothing can now save me.' About ten or eleven o'clock he made me feel his feet, quietly saying, there was a chill creeping over them. A little time after he again called my attention to this fact, mentioning that the sensation came up the limbs.

"Clear and calm in intellect to the last, he conversed with me softly, thanking me for my kindness, and expressing fervent hopes in a better world.

"After noon he spoke of his mother and brothers, asking me to write them when he was gone. I think it was between one and two o'clock when he said, 'Murie, will you put down my brother's address?' This being done, he added, 'Tell them all, good bye.' Then, uttering a prayer, he seemed to rest tranquilly. Shortly before three o'clock, (on Thursday, May 22d, 1862,) there was a slight convulsive gurgling in his throat. A few minutes after his pulse was gone; his heart had ceased to beat. Death had summoned from me my brave companion!" * * *

The successful conclusion of the expedition, the meeting with Captains Speke and Grant at Gondokoro, and the safe return of the party, are now matters of history. The great problem is solved; who but those who have felt it can count its cost?

Dr. Brownell's social qualities were eminent, and, besides the fast and warm friends which they made for him at home, always, in his wanderings, together with his professional skill, commended him to the kind regards of the many strangers among whom he was thrown. Few men have ever had a keener relish for life, in all its phases of experience, of enjoyment, and even of suffering.

Though always delighting in social intercourse, he never married, and a most brave, genial and kindly nature, has left the earth without descendants to perpetuate the strong, marked, and manly features of a mind far beyond the ordinary range of character.

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MEDICAL COMMUNICATIONS,

WITH THE

PROCEEDINGS

OF THE

Seventy-Fourth Annual Convention

OF THE

CONNECTICUT MEDICAL SOCIETY,

HELD AT

New Haven, May 23d and 24th, 1866.

NEW HAVEN:

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1866.

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Prof. C. A. LINDSLEY,

Yale Medical Institution, New Haven, Conn.

MEDICAL COMMUNICATIONS.

ARTICLE XIII.

MEDICO-CHIRURGICAL LESSONS OF THE WAR.

Being the Annual Address delivered before the Convention, in the Hall of the House of Representatives, May 23d, 1866.

By the President of the Society,

ISAAC G. PORTER, M. D., OF NEW LONDON.

THERE is gratification in the thought, that many of our greatest ills are followed by reflex advantages, as their counterpart and consequent. Few principles, in the supreme administration of human affairs, are more apparent than that of *compensation*: "From seeming evil, still educing good." In this way the untold horrors of war, its pecuniary losses, physical suffering, and mental anguish, revert to the world, in the guise of advanced liberty and civilization, of commercial and political advantages. In our own case, our late struggle has also resulted in a better knowledge of ourselves as a nation, as well as a strengthened moral sense in the community, and an increased activity and force of character and intellect, in many of those who have returned unscathed from the strife.

Nor is the reversionary interest less to the medical corps of the army, passive participants as they are, in its bloody scenes, deducing from their painful experience, enlarged views and salutary lessons in therapeutics and the operations of surgery; nor yet to the profession at large, who have only witnessed the conflict from afar. When the time shall come for an actual striking of the balance between profit and loss, it will doubtless appear, that the medical sciences have received no small advancement. Doubtful points have been settled, and new principles, both in theory and practice, established; and so diffusive is science, that the world at large will share in the benefit so dearly purchased by ourselves.

In the war of the Revolution, the country was too much in its infancy, as were medicine and surgery, to promise a harvest even to faithful cultivators; and it must be acknowledged that our subsequent

national conflicts have done little more than furnish the experience necessary to raise up a class of able and useful surgeons for the army and the country at large. But how meager was the experience then enjoyed, compared with that offered to the medical corps of our late army, when blood flowed like water, in its six hundred and twenty-five battles and severe skirmishes. Statistics show that 290,000 union soldiers sleep in their bloody graves, while 400,000 scarred and maimed heroes now tread the soil of our country. With such super-eminent advantages, the profession must be recreant to its duty, if a harvest in some measure commensurate is not reaped. Late European wars, in some points, anticipated us; still, many important questions were, then and there, only broached, without being settled, and our experience on these points presents most important testimony. But the fear will intrude, lest many of our brethren on the field, with the most ample opportunities, through a faulty, previous education, or an inability properly to observe, classify, and record results, may have failed to garner in the fruits. Even in the limited experience of private practice, how few profit as they might by it? How much knowledge runs to waste, and is lost, because there is no one to gather it, and how much more is this true of the army surgeon. But lest we unduly censure, let us view him for a moment, as he stands, with bloody hands, and sad, yet courageous heart. A sanguinary battle has been fought, and, for two days and nights, he has been engaged, with scarcely an intermission, in performing necessary operations, and making his patients as comfortable as possible. "The clay *will sink* the spark immortal;" and shall we wonder that he does not devote the few hours allotted to repose, to writing notes of what he has seen and done? Proud indeed are the records of the profession, as presented in the last annual Report of the Surg. General, U. S. Army. "He says, "I desire to bear testimony to the ability, courage and zeal manifested throughout the war by the officers of the medical department, who, with scarcely an exception, have been actuated by the highest motives of national and professional pride. Thirty-four have been killed, or died of wounds received in action,—twenty-four wounded, and one hundred and eighty-eight have died from disease or accident incurred in the service." The remark may be pertinent, that a *good* surgeon, aside from the actual saving influence of his skill, exerts indirectly a manifest power on the issues of the conflict, through the prestige of his name, and his presence on the battle-field. It is related of Larrey, I think, that the soldiers always sought admission into his corps, and were nerved to deeds of unwonted bravery

and heroism, by the thought, that if wounded they would receive the benefits of his consummate surgical skill.

It is far from being the design of the writer to attempt even a sketch of the medical history of the war. Lest the selection of the present subject may seem ambitious, he will state that all he proposes is, a glance, or conspectus, of the medical and surgical lessons which the war has furnished. Doubtless even this humble attempt might have fallen into more appropriate hands. The items presented were gathered in a five year's term of service, at Fort Trumbull, the Headquarters of the 3d U. S. Artill., and the 14th U. S. Infantry, (embracing, at times, together with volunteer recruits, a command of over eight-hundred men,—and much intercourse, personal and by letter, with medical officers on the field, or temporarily absent, and from such information as the periodicals of the country have afforded. Thus, I was not a personal participant in the conflict, but occupied a position in the outer circle of the storm. The heavens immediately above were serene, and the winds low, yet the southern horizon was skirted with clouds, and the rolling waves at our feet gave fearful evidence of a mighty typhoon raging on the ocean without. If I may extend the metaphor, mine was the responsible office, with others, of rescuing and preserving as many as possible of the shattered wrecks, drifting or thrown on these northern shores.

A French surgeon remarks : " the circumstances which contribute most to the destruction of men, are often likewise those out of which he deduces the best measures for his protection." Thus small pox, at one period, threatened to depopulate the earth, and, as all minds were turned to the subject, vaccination, as the happy result, is discovered. In later times, God has been teaching the nations the great lesson of cleanliness, and is punishing the heathen, both at home and abroad, by the scourge of cholera. But this punishment is preventible, for science can avert it. Let but cleanliness prevail, and, as has been forcibly expressed by another, " one blade of the shears of fate is taken away," thus rendering the other blade, or specific cholera-germ, inoperative, and powerless for evil. In confirmation still further of the sentiment, we may adduce the observation of Guthrie, that the experience acquired in the great wars of Europe, in the early part of the present century, completely changed for the better many important points of practice in surgery. He cites, particularly, the necessity and propriety of *primary* amputation generally, in contra-distinction to the views of Hunter, who, from his experience, chiefly in civil life, was in favor of secondary operations. Though less obviously,

may not the same principle be applied to the introduction and use of Enfield, and Springfield rifles, and minnie balls, and thus good be therefrom deduced? They have, it is true, rendered war vastly more destructive than formerly,—it being asserted by Longmore, on the authority of another, that 80,000 rounds of the old ball cartridges were fired in one day, in Caffraria, and only twenty-five Caffres were known to be killed; and at the battle of Salamanca, only one ball, out of 3,000 fired by the British, took effect. On the other hand, at Cawnpore, one Company, of less than one hundred soldiers, armed with the Enfield rifle, brought down sixty-nine, out of a body of horsemen by whom they were attacked, at one discharge.

The argument is two-fold. 1st. War, as now prosecuted, is too serious, too expensive in life and treasure, for rulers to inaugurate and indulge in it. Old officers, those, especially, who have personally witnessed its dreadful ravages, are the most averse to it; and the more bloody and successful, in one sense the stronger becomes our opposition.

2d. The minnie-ball occasions a wound peculiar to itself, requiring special attention to its nature, sequences, and modes of treatment. A conoidal ball, as is known, usually takes its course, unimpeded, through all the structures of the limb, or body, piercing and comminuting any bone with which it comes in contact. It has been known to penetrate the armor plate of a rebel soldier, killing him instantly. In India it is *said*, when fired at short range, to have passed through the bodies of ten men in succession. Thus are caused the worst species of fracture, demanding special rules of treatment, particularly if judged expedient to endeavor to save the limb. The great lesson of minnie-balls and rifled-muskets, then, has reference to the surgery of bone, the pathological effects of severe glance-contusion of this structure, and more especially comminuted fracture, and *regeneration* of bone by *periosteum*. Already, one volume has appeared on the Surgery of bone,—the result of the war. How often, when a conservative course is determined upon, has the question arisen, how far shall comminuted fragments of bone be removed? Doubtless, if we must err, it is safer to remove too little, rather than too much. This point is well stated in a letter to me, from a highly distinguished surgeon in charge of one of the largest hospitals near Washington. He says, “I have seen an arm amputated for fracture, which, upon dissection, exhibited the fact that, although much comminuted, almost every fragment of any size was joined to the upper or the lower ends of the broken bone by healthy periosteum, and in such state that I am con-

fidest union would have resulted had the limb been treated conservatively." This highly important doctrine of the *productive* powers of periosteum, is not new, but the recent labors of Syme, and M. Ollier, have invested it with fresh interest; and numerous have been the opportunities furnished by conical balls for establishing its truth. The same surgeon referred to above, in speaking on the subject of compound fractures of the femur, says: "For many reasons I prefer Smith's anterior wire splints, having found the extension, and counter-extension, sufficient to answer my purpose, for I consider the risks so great to the patient's life, that if he can get well at all, he is fortunate. Nor do I mind the shortening; and, in fact, where the fracture is oblique, I rather encourage the fragments to lap, and thus give firm union, for, in my opinion, a short leg of flesh and blood is a thousand times preferable to the best artificial one ever made. In this way I have been very fortunate, depending upon perfect rest and drainage tubes, to prevent both motion of the fragments, and the burrowing of pus. If this splint is inadmissible, I prefer the old double-inclined plane."

From numerous pathological specimens of the destructive effects of conoidal balls on bone, as exhibited in the army Museum at Washington, it appears that, when they strike the cancellous structure of the femur just above the condyles, they are likely to cause longitudinal fracture, or fissures, with splintering *above* the wound, owing to the great weight of the projectile, and its wedge-like action; thus compelling the surgeon to operate higher up, from the track of the ball. It is also settled, on the same undoubted authority, that when a minnie ball strikes the femur, while there may be little comminution at the point of impingement, there is a transverse fracture, two or three inches *above* or *below* that point, according as it is above or below the middle of the bone.

While speaking of fractures of the lower extremities, it will be proper to allude to an ingenious and efficient plan devised by Dr. Swinburne, and developed by the war. It consists in the patient being conveyed from the field on a stretcher, which becomes henceforth an effectual splint, transportation being easy and comfortable, the evils resulting from splints and bandages obviated, while the fracture can be treated, until it is well, even without a hospital tent.

Nor may I omit the mention of an admirable extemporaneous splint, for enabling wounded men, especially with oblique fracture, and shortening of the humerus, to be transported with comparative comfort. Dr. Foster Swift, 8th N. Y. Militia, thus describes it:—"After the battle

of Bull Run, we were left with four or five cases of fractured arms, with no appliances except adhesive plaster, and with the prospect of their transportation over a rough road, in a rough wagon, to Manassas, and thence to Richmond. Dr. Huges, of a Miss. Regt., suggested the following simple contrivance. A strip of adhesive plaster, two inches wide, and two feet long, was applied over the upper fragment, its ends resting near the point of fracture, and leaving a loop at the shoulder. A similar strip was applied to the lower fragment, leaving a loop at, or near the elbow. Two straight branches of a tree, of suitable size and length, having each a fork at one end, were procured, and so applied, that with one loop of the sticking plaster resting in each fork, extension to any suitable degree may be made, by tying the sticks or branches together,—or, better still, by letting them into each other by means of notches. When the whole was made firm by a handkerchief, or a neck-tie, much suffering in transportation was avoided."

The next subject that invites our attention is, *contusion of bone*, as presented to the profession in an exceedingly interesting and original paper in the "Amer. Journal of the Med. Sciences," (1865,) by John A. Lidell, Surg. U. S. Army. Contusion of bone, by gun-shot, or other mechanical injury, he is inclined to class among the most formidable effects of the missiles of war, a subject, too, upon which very little has been written.

The same author has published (op. cit., 1864) a paper on *gun-shot injuries of the spine*, the result of his experience in the army, which has new points of interest, and which will add to his reputation as an acute and original observer.

Not less fresh, able, and interesting, is an article in the same Journal, (Jan. 1865,) already cited, by H. Allen, A. Surg. U. S. Army, on *Osteo-myelitis*, the result of original investigations. The subject has previously occupied but a small space in medical literature, and the distinguished Longmore brought it before the Royal Med. Chir. Society, in the month following the appearance of Dr. Allen's paper, and coinciding with him in his views. Brief abstracts of these interesting papers have been prepared, but, for want of space, they must be omitted.

It is doubtless generally known, that at the time when it became evident to the nation that a vast war was upon its hands, circumstances seemed to demand that the Surg. General of the U. S. Army should be changed. Dropping the old order of succession, the demand for a man in middle life, of science, energy, and decision,—one every way

equal to the emergency, was so great, that eighty-two names on the list for promotion were passed, ere a suitable man, as the appointing power believed, was selected. Events, and the talents and executive ability of the incumbent for a series of months, justified the choice; when a marked dereliction of moral principle became painfully evident. He was deposed by sentence of Court-martial; but not until he had inaugurated a thorough reform in the construction and management of Army Hospitals, and, among other things, had greatly advanced the study of nervous diseases, by making them a speciality; confining certain hospitals to the consideration and treatment of such affections, whether real or feigned, especially and exclusively. His successor, who is every way worthy of the position, has, among other means of benefitting the sick and wounded of the Army, and promoting the honor of the profession at home and abroad, recently, as is known to all, issued "Circular No. 6, Surg. General's Office U. S. Army," a thin quarto, concisely, yet lucidly and elegantly written, by Surgeons Geo. A. Otis, and J. J. Woodward, U. S. A.—consisting mainly of a survey of the vast amount of materials, ready at hand to be analyzed, classified, and incorporated into a "Medical History of the War;" Dr. Otis having drawn up the surgical, and Dr. Woodward the medical portions of the work. I might with interest and profit quote extensively from its pages, but inasmuch as this address is rather narrative than didactic, I shall present little more than a mere abstract of such points as may seem most practical or important.

That a vast opportunity is presented for settling such points in surgery as require the evidence of statistics, is shown by some of the early statements in this volume. Seventy cases of excision of some part of the femur, is one item; five hundred and seventy-five cases of excision of the head of the humerus, is another; which last is pronounced an "admirable operation," while that of the elbow is characterized as "a well-established operation." The profession are forced, however, to wait for further analysis before an authoritative announcement can be made as to this whole subject, viz: excision. Judging from the few carefully guarded expressions of Dr. Otis, as well as from a few papers recently published by our surgeons, the results will probably establish the operation, so far as the head of the humerus and the elbow are concerned, but in the lower extremity, subjecting the patient, as it does, to long confinement, chiefly in the horizontal position, and the articulation, particularly the knee, larger, and more important, true conservatism will point to amputation.

The following views respecting Amputation are presented in the Circular to which reference has been made. As regards the operation at the shoulder joint, it is assigned as a proof of good surgery, that the number of amputations, at this articulation, are less than the excisions of the head of the humerus. Amputation, at the elbow and knee, are noticed with much commendation. Nineteen cases that were performed at the elbow are recorded, all of which were ultimately successful. In the latter position, (that of the knee,) the mortality is considerably less than amputation of the lower third of the femur,—exemplifying, incidentally, that other important principle: “the nearer the operation to the body, the more fatal it becomes.” This novel and important lesson of the feasibility and success of amputation at large articulations, is confirmed in a communication to me from a distinguished Army Surgeon, on this general subject. “At the commencement of my army career,” says he, “I made use of all the different modes in ordinary use in civil life, but with such unfavorable results, that I soon threw aside almost everything except the old-fashioned circular, with now and then a flap of the thigh; but even this was objectionable. Almost universally, the circular did well; the rest failed. There are so many influences at work in antagonism to your efforts in military surgery, that the more simple your operation, the more likelihood there will be of success. I refer, of course, to the secondary stage, such as presents itself in hospitals. In the primary stage there is wider field for selection. But even then, I consider that the circular will stand the hardship of transportation and rough-handling, much better than any other. I now feel no dread of amputating through a joint, and in fact I would much prefer going through the knee-joint, than just above its condyles, considering the suppuration that follows the softening of the articulating surface, of less danger than the diseased condition that may be set up, in the bone above, which at that point is extremely vascular, and susceptible to inflammation.” This, it is true, is but the expression of opinion of a single individual, and is authoritative only so far as the views presented carry with them inherent evidence of good sense.

Standing, on one occasion, by the side of a surgeon of large experience on the field, and at the head of a large hospital; I said, “Dr. what is the most important professional lesson taught you by the war?” After a moment’s reflection, he replied: “It is to repose almost unbounded confidence in the resources of the human constitution; for,” he continued, “I have found few, if any, classes of wounds invariably fatal. I have seen men wounded through the head, the

lungs, the liver, the abdomen, and the kidney, and have seen them recover, when, according to all rules of prognosis, they might be expected to die. Young men, if inured to hardship, and if, when wounded, they can be placed under favorable circumstances, with abundance of fresh air, will often unexpectedly recover."

In such subjects, how powerful is the "spirit of health," to which my friend referred, and in which he so wisely trusted. Sir Wm. Fergusson, the eminent London surgeon, adds the following illustration: "If a limb is lopped off a tree of moderate age, nature will cover the wound with a cicatrix of bark, just as certainly as the season comes round. Just as certainly will it inclose a wound in the animal frame; but, in addition, it will do it much more rapidly." Some most striking statistics are presented by the Mound City Hospital, Illinois, respecting field treatment, where abundance of pure fresh air can be commanded, as contrasted with treatment in ordinary hospital buildings. They are as follows:—

In amputation of the thigh, at the upper third; in the field, the mortality is, under favorable circumstances, 45 per cent,—while in Hospitals it is 85 per cent. In amputation at the middle of thigh, the mortality is, in the field, 30 per cent., in the hospital, 60 per cent.; at the lower third, in the field, 20 per cent.; in hospital, 30 per cent. If this is true in operations like the foregoing, how much more striking must be the testimony in such affections as Hospital Gangrene.

As regards the danger of primary hemorrhage in the field, Dr. Otis remarks, that it has been much overrated. It was so much feared at the beginning of the war, that it was seriously proposed by several benevolent associations, that every soldier should carry a field tourniquet with his equipments. Still, an army surgeon of large experience says, "that besides Per-Sulph. Iron, no medical man on the field should be without cotton in his pocket, which, moistened with Tinct. Matico, may be inserted into a gun-shot or other wound; he regarding it as the most effectual styptic known.

Bayonet and sabre wounds were not numerous; "143 of the former and 105 of the latter, being all that were reported in the first three years of the war." Conversing one day with a chief medical officer in Sheridan's army corps, I inquired as to the nature of the wounds which he was called on to treat, after a battle with the cavalry of the enemy. His reply was; "We have but few sabre wounds to treat, for it is very seldom that opposing bodies of horse close in with each other. They approach near enough to discharge their pistols and carbines, when they wheel, and then do what execution they can with

their light artillery. There is but little of the actual out and thrust, which abounds in the cavalry drill." Major Zagony, at Wilson's Creek, with his 150 guards, is the only instance, certainly in the early part of the war, where all the work was done with the sabre, cutting their way out, literally, from the enemy that surrounded them.

It is related of that eminent educator and philanthropist, Horace Mann, that all his air-castles in youth, had reference to some great scheme for the benefit of mankind. In this spirit, in an address to young men, he exhorts them faithfully to cultivate their physical powers, in advance of actual requirement, and in preparation for any sudden emergency, such as shipwreck, which might occur, and tax their powers beyond endurance. The exhortation could not have been more appropriate to this nation, had he, with prophetic eye, have foreseen the exposures, privations and sufferings of our late war. Thanks to a kind Providence, however, there was in our people an uncommon amount of physical stamina, and of those reserved qualities of nature, which the educator above named desired to cultivate; and the character of the American soldier has been established as matchless, not only in his physique, but in patriotism and mercy as well, and he has returned with muscles, for the most part, more tense, vitality more energetic, and his whole organism more solid and compact, henceforth to become a better citizen than before the war, and prepared to exert a powerful influence on the childhood and manhood of the next generation. It is to men, such as these, and to their deeds, that Hon. Mr. Banks refers, in his speech in Congress in favor of a large national appropriation for the forthcoming Art Exhibition at Paris. So well known abroad are the toils and achievements of our army, that he says, "let there be sent forward a pair of worn out shoes; the dress of an American soldier; the shelter-tent under which he slept; his bayonet, his musket, and his knapsack, and they will attract more attention, draw greater crowds of people, and hold them longer and faster in study and observation, than the crown jewels of England and France, and all the European states combined." But let us contemplate the subject a little in detail. As our army was the largest of modern times, so never, in any period of the world, has the conflict extended over so many degrees of latitude and longitude, with the consequent necessity of rapid change of climate, from the far north to the extreme south, with change of food and manner of life, with want of rest, or the alternative of sleeping on the ground, amid snow or mud, and often, after a battle, with not even a blanket. At the opening of spring, we find them, in their forced marches, plodding through the red clay of

the sacred soil of Virginia, or, in mid summer, thrown into regions abounding in malaria; lying on the ground after the fatigue and exhaustion of marching in the hot sun; exposed to the chill air of night, while their acclimated enemies were fearful, before the war, of leaving their houses until after the morning meal. Under circumstances like these, is it not strange, not, that many died, but that so many lived to return.

This train of thought leads naturally to the subject of the supposed prophylactic powers of the alkaloids of cinchona, particularly quinine, against malarious diseases. For some years past, as is well known, it has been used as such by the English Navy and Army; and was also, early, by Du Chaillu, Livingstone, and other travelers and missionaries, in the equatorial regions of Africa. It has also been resorted to, with apparently marked success, by the employees of the Panama Railroad, the crews of vessels visiting Aspinwall, and those engaged in clearing and settling the adjoining country. All this was previous to the war, as were many successful trials of the same in the rice-swamps of the south and the rich bottom-lands of the west. But at the north at least, the great fact claimed had scarcely taken possession of the medical, much less of the common mind. Passing by humanitarian considerations, sickness and suffering, this use of quinine, in an economic point of view, is not unworthy of notice, as the six or eight grains required daily, are, in the aggregate, much less than would be needful in a case of sickness; but in a far higher pecuniary sense is this true, when, as at present, through the mortality, or the asserted unreliability of the freedmen, it is uncertain what people are in future to cultivate and own our southern soil. But not only there, but throughout the world, wherever rich tropical lands are to be cleared up and cultivated, by the enterprising men of the north, whether European or American, there the testimony of the experience of our armies under the direct supervision of our medical men, must be of the highest interest.

But our concern, as medical men, is with the therapeutic fact as claimed. Is cinchona then, in any sense, a "double cure" for malarial diseases? in the one case, fore-stalling their power; or, if applied too late, neutralizing and counteracting their noxious influences. We have in scurvy and its remedies, a case somewhat analogous. A free use of lime juice and fresh vegetables will, in this disease, ordinarily effect a cure. But will not a dietary, embracing these articles in due quantity, prevent the formation of the morbid affection? Some, with over-weening confidence, have compared the prophylactic powers of

quinine to garments of asbestos, which, if worn by one entering a burning house, were formerly *said* to defend the wearer, surely and effectually, from the effects of fire. Under this impression, its use has, doubtless, often been untimely, and may have been injurious. Quinine, like alcohol, is a medicine of too much power to be harmless, if taken freely in health. To load the stomach with it for days, before meeting with malaria, is like using cold externally, and giving internal stimulants early, to a patient in parturition, who is *sometimes* affected with alarming hemorrhage. I have the highest authority for saying that the rule which the experience of our armies has established, is, to withhold the quinine until, as the point of danger is approached, there is the actual appearance of slight, but well-known and positive indications of malarial poisoning upon the individual. If given indiscriminately, we have in this fact one cause of the prejudice of many soldiers against its use,—or, refusing to continue it, when wisely and properly ordered, they ignorantly ascribe any subsequent malarial disease, or cachexia, to a medicine of which they took, in reality, only too small a quantity.

I cannot but allude, in passing, to the views of Frerichs, the result of recent investigations, respecting the influence of malaria in the production of pigment-matter in the spleen, which, *in its* turn, becomes the obstructive agent of disease in other organs; and, also, the power exerted by quinine in preventing, by its anti-periodic efficacy, the malarial congestions of the spleen, which congestions result in the secretion of this pigment-matter.

Quinine, moreover, when used early, as a prophylactic, has a general preservative action, in toning up the capillary system, universally, and, like nutritious food, enabling the body to resist successfully the incursions of disease.

The subject of Sun-stroke, or heat-exhaustion, so common in the mid-day marches of summer in the middle and southern States, demands a more extensive notice than it can now receive. It gives me pleasure, however, to refer to a most sensible article on the subject by Assist. Surg. Charles Smart, U. S. Army, published in the *American Journal of the Med. Sciences* for 1865, and which has received the approbation and endorsement of many medical officers who witnessed the disease in Virginia. A few brief remarks, mostly in his own words, will exhibit its spirit, as well as his pathology and treatment. He says, "while fighting our way to the Rapidan, and in front of Petersburg, in 1864, with a mean force of 20,000 men, the number of cases of this affection reported by the Regimental Surgeons, amounted

to three hundred and ninety." What an opportunity to study the disease, and to form opinions entitled to favorable notice!

His picture of the affection is vivid and life-like. The subject affected is usually a raw recruit, who, in the early part of the day, perspires freely. About mid-day, he feels greatly exhausted; his breathing becomes quick, his heart palpitates, and the back of his head is hot and painful. His skin is also hot and dry, (no longer moist,) and he soon falls, sun-struck.

His views of the pathology of the affection, are briefly as follows:—"Heat relaxes warm blooded animals. Blood is accumulated in their superficial vessels, and from them its water is rapidly but insensibly vaporized, or gathers in big dew-drops upon the skin. Now, water is of as much importance in the constitution of the blood, as are the red-corpuscles themselves, and its presence in normal quantity is indispensable." Much more in support of this view is adduced by our author, who defines sun-stroke, or heat exhaustion, as a condition resulting from the concentration of the serum of the blood.

The indications as to treatment are two-fold. 1st. Such as are to be fulfilled in order to prevent an attack, if it be but threatened; and, 2d, to treat it, when well established. Happily, the means in each case are the same; and are simple, ubiquitous, for the most part, common sense, instinctive, and effective,—viz: water.

Troops upon a march should not be sparing of water, if it is to be had. Let them drink, often, *moderately*, and the stomach will then have time to absorb the quantity necessary to supply the waste in the blood-vessels. A large quantity cannot be absorbed by the venous radicles, and does harm, producing pain and faintness.

In the second condition, or the out-break, if there be the least sensibility, still, cautiously introduce a few drops into the mouth, to learn whether the power of deglutition remains. If not unconscious, the patient will, by and by, protrude his tongue, as if the water was agreeable, while great repugnance will show itself, even in a dissipated soldier, if whiskey is substituted. But, suppose the patient insensible, and unable to swallow; the case, though nearly desperate, is not hopeless. Let his woolen shirt be saturated, and his hair matted with water. This will cool his hot and dry skin, and if anything will accomplish it, will arouse the expiring vital spark,—and allow him gradually to sip a little of the water so necessary to restore the lost balance in his system." Without enlarging on this subject, I will only add the following words of the author:—"I have lost no patient, yet, (under this treatment). Indeed, so confident did success make me,

that I felt justified in prognosticating that in every case, if the patient lived but a few minutes, that is, time sufficient to admit of the absorption of a material amount of water by the veins, he would ultimately recover."

Should any one object, that the remedy is altogether inadequate, let him remember that the experience of the profession is favoring simplicity in therapeutics, of which the treatment in pneumonia and continued fever, furnishes examples. The theory and practice detailed, may not meet every supposable case of sun-stroke in our northern cities, but where shall we find a safer or a better?

How vast the debt of obligation, from soldiers, to water! What wound, or disease, or operation, where it is not almost indispensable! And it is all the more valuable because we have it, just as the God of nature made it, without any aid from man, with his approximate billionth or decillionth dilution of some foreign substance. Where, in nature, shall we find any indubitable homeopathic remedy, ready prepared by a benevolent Creator, for poor, suffering humanity? Shall we be referred to natural mineral springs? But it will puzzle our most expert chemists to detect the billionth dilution of alumine or silex. A remedy, to be such, must be appreciable to science; otherwise, we may deceive ourselves into the belief, that a nonentity can be a remedy.

One who attempts to present and discuss the medical lessons of the war, within the hour usually allotted to this exercise, will find himself encumbered with what the French style, the "embarrassment of riches."

We have, as yet, scarcely opened the rich stores furnished the profession in Circular No. 6, (already referred to,) by Surg. Woodward, having said nothing of his researches into the fevers of the army, particularly camp fever, or the practical influence exerted by his happy application to it, of the name, "typho-malarial;" for a name in medicine powerfully affects the views and practice of those who adopt it.

Few subjects received more attention during the war, or were more happily elucidated, than that of Hospital Gangrene. But we have only time to name the new and important modes of treatment by Bromine, Per. Mang. Potass., white sugar, and sour milk. Nor have we time to consider that interesting experiment, with its lessons, forced upon the medical staff by order of the Surg. General, so vast in its scope and application, viz., the treatment of disease, as it arose in the various armies of the nation, without the use of Calomel, or Antimony.

We might dwell, also, with interest upon that strange psychological lesson respecting the decrease of insanity in the country, during the war; the amount of admissions into Insane Retreats and Hospitals, contrary to experience and expectation, in place of being increased by the trials and bereavements of the conflict, having in some institutions actually *diminished* to the extent of 20 per cent. We might speculate as to special causes, leading to such novel results in our case, but we must forbear.

We have said nothing as yet of the improvements in the construction of military hospitals, which have rendered those of this country superior to any in the world; nothing of our improved ambulances, and ambulance system; nothing of army diet, and army hygiene, which have rendered our forces in the field more free from scurvy than any other that ever existed; nothing of a theme which warms every heart, the benevolent, patriotic, angelic efforts of the women of the land, who, at great personal sacrifice, formed unnumbered Soldiers' Aid Societies, and literally went into the hospitals as volunteer nurses, and, as I am informed by an eye-witness in the army of the Potomac, in a single instance at least, *upon the field*, where this heroine to whom I refer, hovering around where the carnage was thickest, was herself wounded, and carried to the rear;* and nothing of our Sanitary and Christian Commissions, before substantially unknown, as useful in prolonging the lives of thousands, and hastening the war to a close, as they were colossal in their organization and pecuniary outlay. These, and other important topics bearing more or less directly on the lives and health of our soldiers, must be passed, while your patience is taxed with only one other lesson, viz: that respecting chronic diarrhea.

As tending to elucidate the subject, it will be proper to refer to an important medical fact, as developed and established by Surg. Woodward, in the army statistics referred to in Circular No. 6.

For purposes of comparison as to the sickness and mortality of different sections of the United States, it became necessary to consider the whole area as divided into three great regions: the first be-

* May not this have been Mrs. Almira Fales, of Washington, who "was months at sea, the only woman on hospital ships, nursing the wounded and dying men. She was at Corinth, and at Pittsburg Landing, serving our men in storm and darkness. She was at Fair Oaks. She was under fire through the seven days fight on the Peninsula, with almost breaking heart ministering on those bloody fields to the saddest creatures she ever saw."

ing designated the Atlantic, and embracing all the slope between the Appalachian chain of mountains and the ocean.

2d. The Central region, embracing all the great basin of the continent between the Appalachian chain and the Rocky Mountains, and,

3d. The Pacific region, lying west of the Rocky Mountains. With the exception of the comparative exemption of Minnesota and Iowa from consumption, medical men in civil life have, for some few years, entertained the opinion, that the second, or Central region, was more subject to sickness and mortality than any other portion of the United States. This impression has been amply confirmed by the statistics of our armies,—particularly as regards fevers and diarrheas. As a single illustration, I quote the Monthly Mortality Report, as furnished in Circular No. 6, for the year ending June 30, 1863.

In the Atlantic region, the deaths from all causes, per thousand of mean strength, were 41. In the Central region, 89 per thousand. In the Pacific region, 8 per 1,000.

That this difference is mainly to be ascribed to the amount and intensity of malaria in the Central region, appears from the prevalence of periodical fevers, and the amount and mortality of diarrhea, acute and chronic, which was greatly in excess of that found in the Atlantic region, as appears from the following :—

The ratio of deaths per 1,000 of mean strength in 1862 and '63, from diarrhea was, in the Atlantic region, 8 + per 1,000. In the Central region, 22 + per 1,000. In the Atlantic region, there was 1 death to 116 sick with the disease. In the Central region, 1 death to 43 ill with the same.

During some years of the war, cases of diarrhea constituted more than one-fourth of the instances of disease reported, and next to camp fever it was the most fatal. It is much influenced by season and climate, diet and exposure, prevailing most in those months in which intermittents abound, and without doubt is partially malarial and sometimes scorbutic in its origin. The heat of the summer-day, succeeded by the damps of night; the decomposition going on in the waters of southern regions through the influence of a hot sun, and unfitting them for drinking, or for cooking purposes; the impregnation of the same with lime-stone, or other saline particles; these, when combined with fatigue and exhaustion, and a diet by no means anti-scorbutic, are all active causes of the affection, and if of long continuance, must engender the chronic form.

In a successful treatment of chronic diarrhea, the remedy must be adapted to the case, and not to the name. If malarial, a union of

three sulphates will often reach the case,—sulphates of Quinine, Morphia and Zinc. If not evidently scorbutic and malarial, large doses of Sub. Nit. Bismuth ($\mathfrak{D}$ 1 to $\mathfrak{D}$ 4) may be given in one dose. Circular No. 6 says, that this remedy is the fruit of the war. Its proposer, Dr. Trask, claims, that in 270 cases, treated in Finley Hospital, it never failed, in cases not near dissolution, treatment lasting from one to eight days. Surg. Woodward says, that in his experience it has shown itself a most valuable agent.

Two other articles (Strychnine and Arsenic) were also first extensively used in our Army,—the former, with Quinine, or Quinine and Iron, and was useful in atonic and paralytic conditions of the bowels, while the latter, (arsenic) was useful chiefly in cases complicated with chronic malarial poison. Nit. Argent. 1 or 2 gr., with opium $\frac{1}{4}$ or $\frac{1}{2}$ gr., acts well if the patient is not very weak, and often cures if ulceration has not taken place. Tannate of bismuth, in scruple doses, is a new article, and is said to have been very useful among the rebels at Elmira, N. Y.

Abundant ventilation and perfect cleanliness of person are of the utmost importance.

A change of location, in most cases, especially if from south to north, is of the highest importance, as is shown by the following striking statistical facts :—

The proportion of deaths to cases of the disease in the Hospitals of New England, was 1 to 49; in those of New York and New Jersey, 1 : 19; in Washington, and other Hospitals in that region, 1 : 11; at Fortress Monroe, and coasts of North and South Carolina, 1 : 7;—and in the great basin of the west and south, the mortality was still higher; thus the deaths in the country at large, varying from 1 to 49 cases in New England; to 1 in 4 cases in Louisiana.

A therapeutic principle of much importance remains to be noticed. It is well known that one of the soundest medical men of England is publishing a series of articles on Asiatic Cholera, one object of which is to show, that it is unwise, in this complaint, to bend our efforts to checking the alvine discharges, as a *sine qua non*,—arguing that safety consists in not stopping them too suddenly, for if successful, that death often follows from the consequent reactionary febrile state.

Without feeling either called on, or competent, to decide upon the correctness of the eliminative theory in this affection, the subject may be used as an illustration. Applying it to the matter in hand, there is no little evidence, that in diarrhea and dysentery, especially if chronic, the discharges are, sometimes at least, *conservative of nature*,

and that active medication becomes useless, and astringents, particularly if vegetable, injurious ;—that there is a necessity for the drain, which can only be safely met, by introducing into the circulation the elements of healthy blood ;—if the case be scorbutic, by the use of oranges, baked apples and mashed potatoes,—and in all, mild, nutritious food ; removal, if possible, from the location and causes of the original attack ; pure air, and warm clothing ; everything, in short, promotive of good sanguification ; ever bearing in mind that general maxim of T. K. Chambers :—“ the best remedy to a diseased organ, especially if the affection be chronic, is a stream of healthy blood.”

ARTICLE XIV.

THE PROPHYLAXIS OF PHTHISIS PULMONALIS,

Being the Annual Dissertation read before the Convention, May 24th, 1868.

BY CHAS. L. IVES, M. D., OF NEW HAVEN.

THE report of our State Librarian, for the year 1863, presents a total of 7,470 deaths from ascertained causes, occurring during that period. Of these, 1,131 were from Phthisis Pulmonalis, or Consumption of the Lungs. In 1864, of 8,132 reported deaths, 1,171 were from the same destructive disease. In 1865, of 7,039 deaths, 1,108 were from this cause. In other States, the relative mortality is a like fearful one. And yet, of this vast amount of disease and death, nearly all might have been prevented. Those months and years of suffering, that sad foreboding, that agony of actual parting, that loss to the family of its hope and pride, that loss to society of its present or anticipated ornament and dependence; of this, nearly all might have been saved. Proper watchfulness, care and management, would have warded off the malady in the vast majority of these cases, for there is scarce a disease whose prevention is so much in our power as this.

The symptoms presented by Phthisis Pulmonalis, are too well known to need description here. The peculiar feature of the disease is the presence in the lung of a tubercular deposit, which causes, in general, suppuration, and the destruction of the tissues involved. An important inquiry then meets us at the start. What is tubercle; how and when is it deposited in the lungs?

Two forms of pulmonary tubercle are recognized by pathologists; the grey, miliary tubercle, small, distinct, spherical bodies, of the size of millet seed,—if larger, formed by the aggregation, not coalescence of such bodies,—and the yellow, cheesy tubercle, amorphous and friable, in disseminated masses it may be, or closely packed into the lung, like the inflammatory deposit of pneumonia.

The theory heretofore generally received of the formation of tubercle, regards it as an abnormal exudation from the blood. A tubercular dyscrasia, some peculiar alteration or impairment of the blood or of the vital forces is assumed, in consequence of which the liquor sanguinis, which has been effused from some quasi inflammatory action, instead

of proceeding on in its normal development into healthy formative cells, or into pus, is somehow arrested midway of this process, and the imperfect residuum remains, as tubercle. On this view, tubercle is an abortive development of the plasma of the blood. Of this theory, Dr. J. H. Bennett stands as the recognized exponent.

Another theory, that of Virchow, recognizes an important distinction between the grey and the yellow tubercle. It bestows the name upon the former only, and traces its growth as a distinct, minute tumor, a literal tubercle, from a proliferation or progressive development of cells from a parent cell. It would seem to have been, perhaps, this development of true tubercle, which gave that eminent observer the clue to his great doctrine of cell growth. The yellow, cheesy substance is not properly tubercle, in fact, does not deserve the name, being merely the result of the fatty degeneration and disintegration of other tissues, it might be of the grey (the true) tubercle, of pus, of carcinoma, and the like. Such a radical distinction between the two forms of tubercle, is borne out in our practical experience, by the essential difference in the diseases caused by the two forms. The Acute Phthisis, produced by the grey tubercle, so very marked in its constitutional symptoms as to have originated a suspicion of its identity with typhus fever, is strangely unlike the chronic wasting of the old fashioned Consumption, the Phthisis of the yellow tubercle.

Of Acute Phthisis, of the origin of grey tubercle, we have little to say. We know little, and, fortunately, see but little of it. The Chronic form of Phthisis which, slow but sure, yearly kills its thousands, offers to the physician the fullest and most satisfactory field for prophylactic measures.

What then is the yellow, cheesy material which causes such havoc in the delicate tissue of the lung? A degenerated and degenerating tissue, we say, but whence comes it,—whence its source of supply? From the worn out epithelial cells of the air vesicles, which, having performed their function, instead of being then disintegrated and carried off as usual by the vital actions of the part, are suffered to remain, filling the air vesicles, and by their gradual accumulation, rendering that portion of the lung unfit for respiration. In the so-called "tubercle corpuscle" of Lebert, we find the large nucleus of the epithelial cells, while the accompanying granular matter is made up of the broken down substance of the same cells. This theory of the epithelial origin of the common tubercle,—common, in its greater frequency, and yet, after all, really a simulated or spurious tubercle,—this theory, it will be found, explains many problems which the exudation

theory fails to meet. That theory, as Dr. Edward Smith has well shown, assigns no satisfactory reason for the arrested development of the exudation, especially in an organ so highly vitalized as the lung, at a time when exudation goes on to its normal development, in case of inflammatory action elsewhere. It offers no reason why the exudation of yellow tubercle should be found so uniformly in the upper part, the very apex of the lung, or why the disease should especially affect the early years of adult life. Chemical and microscopical tests fail to discover any proof of the dyscrasia, the peculiar alteration of the blood assumed. The observations of that eminent microscopist, Virchow, are utterly irreconcilable with the theory. (Cellular Pathology, Am. edition, page 439.) He "found that a series of tubercular deposits in different organs never at any time exhibited a discernible exudation, but always, during the whole course of their development, presented organized elements, without its being possible to observe either in them, or before they existed, any stage in which amorphous, shapeless matter was present." Further on he tells us, that "nuclei and cells are found in great abundance, though they afterwards break up, and directly supply the material for the final accumulation of cheesy substance."

Turning, then, from the Exudative to the Epithelial theory, we find that the view it gives us of the origin of Chronic Phthisis, is most encouraging. No diseased exudation is to be pre-supposed. The tubercular matter is originally a normal constituent of the part; epithelial cells, which have failed to be excreted from the system, when their work is done, and remain as a foreign body, to be excreted by softening and expectoration, or possibly to be mainly absorbed, after a fatty degeneration, as sometimes occurs with pus cells. But why does this accumulation ever take place? Simply, for the lack of that force which ordinarily operates to prevent it.

What this agency is, it is most important for us to understand. The mucous surfaces of the alimentary canal, cast off the worn out epithelium, by peristaltic action and the friction of passing substances; from the pulmonary bronchi, excretion is carried on by the ciliary currents; but the air vesicles of the lungs, these *cul-de-sacs*, with scarce an appreciable incoming or outgoing current, without ciliary action, how shall their effete contents be emptied into the capillary bronchus? Perhaps the outward ciliary current may exert some influence, a slight *vis a fronte*, but in the main we must depend upon the mutual pressure of the air vesicles, and their closing or collapsing during expiration, to press out their contents; the completeness

of this action depending upon the depth and vigor of the respiration. With a lessening breath motion, then, there will be, of course, less and less facility of excretion, till at last the epithelial debris begins to accumulate in the well-known form of a tubercular deposit.

Such an accumulation we should expect to find in the apex of the lung, where the more unyielding parietes, ribs, clavicle and scapula, prevent the free movements of the parts, so that no little muscular effort is required to draw the air into the remoter vesicles, to sweep out the dirt, so to speak, from this far corner of the lung. There, in fact, the tubercles are found, and not in the depending and more moveable portion of the lung, where, following the law of gravity, congestion and true inflammatory exudation first make their appearance. The deposit having thus originated in the apex of the lung, the air vesicles first affected, when filled and solid, like an unyielding wall, restrain the motion, and consequently the epithelial excretion of the next adherent vesicles; and so from above downwards, the deposit creeps on, each newly filled vesicle binding down its neighbor beneath, and preparing it for a like total failure of its function. That the deposit is so long restricted to one side of the chest, a fact almost at variance with the theory of a general exudation from the blood, finds a ready explanation on the epithelial theory.

The efforts of the healthy lung to supplement the deficiencies of the other, as evinced by the puerile respiration on the sound side, tend to insure a more complete expansion of that lung, thus preventing a deposit on that side for a long time, or until the increasing prostration of the disorder shall have sufficiently reduced the general respiration, and with it the excreting power of both lungs.

Again, on this view we can readily understand why childhood enjoys an immunity from this disease, which especially attacks the system when the culminating vigor of early manhood might presuppose the greater exemption. In childhood, the forming and shedding of epithelium, the waste and repair of all the tissues, is exceedingly rapid; abundant material is thus at hand for the deposition of tubercle in the lungs. But the energy of the respiratory movement is equally in excess; the child of either sex is ever in motion, and ever in the open air, if possible; he runs, he shouts in his play, and the needs of the circulation requiring large supplies of oxygen, he drinks in deeply of the vital element; every day he *expands his lungs* to the utmost; and, while he does this, he is safe from Pulmonary Phthisis. But with the age of puberty his habits change; the boy is confined in doors, bending over his books at school, or in the hours at

home which should be given to play ; the girl, growing up into young ladyhood, is imprisoned within tight-fitting dresses, to exhibit the developing form ; she carries her hands folded across the chest ; she may not run, or speak loudly, or commit any unladylike impropriety, which might insure pulmonary expansion, notwithstanding epithelial desquamation is still most active. Can we wonder at the result ? Soon the shoulders are drawn forward, to cramp still more the chest ; the shallow respiration fails to reach the apex of the lung, and ere long, in this spot, a dullness on percussion tells us the epithelial debris has failed of being removed ; a tubercular deposit has taken place.

It may be thought that the epithelial origin of yellow tubercle fails to explain why a so-called "cold on the lungs" leads to or develops a pulmonary deposit in those organs. The accompanying cough, we might presume, would so expand the air vesicles of the lungs, as to antagonize the tendency to tubercular accumulation. But, passing over the fact that at such times there is an increase of effete matters in the lungs, we observe that a cough does not presuppose any such inspiratory effort as will expand the air cells at the apex of the lung. No more air is drawn in than shall suffice, by its sudden expulsion, to eject from the trachea, or larger bronchus, some irritating substance which may have been carried so far outward by the ciliary action of the smaller bronchi. The voluntary efforts of the patient, it will be observed, are all directed to prevent expansion of the lungs. Dreading even to draw the external air over the inflamed surfaces, he bends forward the spine, draws the shoulders forward, to hold the chest stationary, to arrest, as far as may be, all breath motion ; thus assuming the very position which, by its continuance, is sure to prevent epithelial excretion, and thus to establish the tubercular deposit. Herein,—please notice this point,—is the real danger of 'colds,' in their relation to Phthisis ; and hence the urgent need of special cautioning and care, that, as soon as the inflammatory condition will permit, the fullest expansion of the lung shall be secured.

It has seemed necessary thus fully to develop this theory of the epithelial origin of yellow tubercle, because, as a man thinks so is he, and one, adopting this theory, is naturally led to those means which are found most certain to counteract the morbid deposit. The great rule impressed upon us is this : *Increase the depth and vigor of the respiratory act, and so insure the fullest expansion of every part of the lung.*

But preceding the deposition of tubercle, a state of general debility is usually observed, dependant, according to the common theory, upon

the assumed tubercular dyscrasia or impairment of the blood. According to the theory we adopt, the general feebleness of the system begets a like feebleness of respiration, whence results insufficient pulmonary excretion, with its consequent accumulation of tubercular or epithelial debris. This state of debility arises from inadequate nutrition, from protracted sickness, (and especially from the exanthemata,) from the mental depression of over-burdening grief or anxiety, and from other manifest causes. To meet it we have merely one thing to do. Bring up the general strength.

The prophylaxis, then, of Phthisis Pulmonalis, whether it has reference to the state of the lungs or of the system generally, resolves itself into one plain, simple rule. Raise the physical condition of the whole system to the highest vigor possible. Physical culture is the safeguard against Consumption.

But a preliminary question may arise as to the precise limit of the treatment we may style prophylactic. One calls that Phthisis, and rightly so, where, on careful examination, a slight deposit in the lungs is detected, although the rational signs are few. Another refrains from pronouncing the dreaded name, until the constitutional disturbance has so far progressed as to leave but faint hopes of recovery. But this disagreement, practically, is of little importance. It is virtually the same thing, whether we avert the possibility of a tubercular deposit, or, after its recurrence, prevent fresh deposit, and so assist the cure of that already there.

That Phthisis is curable, so far as any disease is curable, though some even in the profession still doubt it, no longer admits of a question. Not to cite reported cases, and the opinions of various standard authors, the experience of every physician at all expert in Auscultation and Percussion, furnishes numerous instances where tubercular deposit, of an inch or more below the clavicle, is found sensibly diminishing under appropriate treatment. And the revelations of the dead-house of any large hospital, are proof enough on this point. Autopsy after autopsy is made, as the writer can testify, of patients dying of disease other than pulmonary, whose lungs, scarred and puckerred by lines radiating toward a central cicatrix, attest the healthy closure of large tuberculous cavities, to the number of two or even three. Why should we not expect such a result? The system will dispose of foreign bodies in other parts; here a like process of supuration is set up, with expectoration, to get rid of the softened tubercle, and if, during the debilitating process, the strength is sustained,

and the healthy portion of the lung kept expanded, so that no further deposit takes place, an entire cure, as a matter of course, will result.

Now for the practical application of the rule we have adopted for the Prophylaxis of Phthisis. *How* shall that completeness of physical vigor required to ward off tubercular consumption be best secured?

First, as regards the lungs themselves. These may be expanded and strengthened—*from within*, by the dilating force of the air drawn in by deep, forcible inspirations—*from without*, by the methodical development of the muscles concerned in respiration.

To take deep, forcible inspirations, although apparently a very simple thing, requires no little effort and practice to accomplish it to the best advantage. Most persons, especially those with a predisposition to Phthisis, when told to draw as long a breath as possible, will inhale with much outward display, then exhale; the whole a matter of a second or two, and that is actually the extent of their ability. They have not yet fully learnt how to breathe. But a vast improvement will be witnessed after a little training. Let the patient sit or stand with the shoulders carried back and downwards;—through an $\frac{1}{8}$ inch tube, or a similar orifice made with the lips, direct him to draw in his breath slowly and for as long as possible; when he thinks his lungs are full, let him make still further efforts, raising the ribs and catching for breath, as one in Asthma, until no more air can possibly be drawn in; then hold the breath for a moment or two, at the same time forcibly carrying the shoulders still further back and down,—after which the air is suffered gradually to pass out of the lungs. Any one watching the process in himself, will observe that the air, at first entering the lower and more moveable part of the lung, does not fill or expand the apex, till the last forcible inspiratory effort, and that it is especially pressed into that part by the drawing back of the shoulders at that time. This exercise is performed preferably in the open air, or if a warm room is required, it should be well supplied with oxygen. As the pure cool air enters deeply into the lung, a sense of warmth and refreshment is felt over the whole body. A few deep inspirations have often sufficed thoroughly to warm the writer, when riding out and suffering from the cold. A good degree of proficiency in the operation will be recognized, when sixty seconds shall be consumed in one uninterrupted inspiration. Of course, in case of actual deposit, the inspiratory effort should be graduated to the strength of the patient; and, in any case, the experimenter will hardly feel like trying it twice in immediate succession. The slowness with which the effort is performed is essential, giving all parts of the lung time to expand, and

accustoming the respiratory muscles to the varying positions required for the complete act of respiration.

In like manner, to expand the lung by means of its contained air, the spirometer of Dr. Dio Lewis proves of very great service. In this instrument, the air is blown into a very small elastic chamber, which, by its expansion, forces apart a spiral spring, whose movements are registered upon a dial. As the air cannot escape from the small chamber, the reaction upon the lungs is of course equal to the force with which it is blown in. A degree of the dial is stated to mark a pressure of an ounce to the square inch, and when the pressure is raised, as with gradual practice it safely may be to four or five lbs. to the inch, a power is exerted that will prevent the possibility of any air-vesicles remaining unexpanded, in which epithelial debris might find a lodgment.

This instrument is not a measure of the capacity of the lungs, like other spirometers, but of the power of the respiratory muscles, and its revelations strongly expose the prevalent faulty development of these all-important muscles. Many a delicate lady, through weakness of these muscles and ignorance of their use, is unable at first to move the index a single degree. One evening, a middle aged lady of pulmonary development equal to the average, was in the writer's office. Trying the spirometer, after two or three efforts, she succeeded in carrying the index as far as 8, much farther than most ladies in their first attempts. Her little son seized the tube; expanding fully his chest with a deep inspiration, showing that the daily exercise of his lungs in childhood's plays, had not been lost upon him, he quickly carried the index to 8, on his first trial, and to 12 on the second; a marked illustration of our previous statements regarding the greater relative development of the muscles of respiration in early than in adult life.

We are now prepared to recognize the necessity of the second means suggested for expanding the lungs, viz: by the methodical development of these respiratory muscles. If a special physical labor devolves upon an individual, by that very work he is compelled to develop the muscles especially brought into play, or he will soon be found incompetent. The youth in training for a rowing match, while strengthening his whole system, seeks especially to strengthen the muscles by which he pulls at the oar. So one struggling for long life, against a narrow, contracted chest, an enfeebled respiration and a hereditary tendency to Phthisis, should he not especially develop the muscles which antagonize these tendencies,—upon whose efficiency his very existence depends? Every time even, that the arm is raised above the

level of the shoulder, by its muscular attachments, it draws upon the ribs, raising them, and thus enlarging the cavity of the chest,—thus producing a larger vacuum and a freer entrance of air.

No one, surely, will fail to appreciate the value of such movements, methodically practiced from day to day, and varied, as required to bring the different muscles into action. The kind of movements required will suggest themselves to any good anatomist, and may be found, with much variety of detail, in the treatises of Dr. Dio Lewis, on the "New Gymnastics," and on "Weak Lungs," works well worthy a place in the physician's library. The so called lighter gymnastics are preferable to the heavy exercises, especially for those of feeble strength, being based upon the principle that several repetitions of a slight exertion involve, in the end, an expenditure of muscular power equal to a greater effort put forth once or twice, while all risk of an injurious strain is thus avoided. "Putting up" a 36 lb. dumb-bell, no doubt, would be too great an effort for many, but all can raise a one pound bell. And repeating this thirty-six times, furnishes an equal or greater amount of exercise in a more available form, since the number of repetitions, and thus the amount of labor, may be adjusted to the strength of the patient. Such exercises as carry the shoulders back and downward, are especially recommended. And not alone at the hours of practice, but at all times, it should be the endeavor to preserve this healthful position of the shoulders, for which purpose well-developed muscles are certainly better adapted than anything artificial in the way of braces.

But our attention is not restricted to the upper extremities. The whole system is to be invigorated, and to this the due exercise of all parts is essential. He who announced to our first parents that law of mortal life, "In the sweat of thy face shalt thou eat bread," bestowed a blessing in the curse itself,—in it revealing to them the condition upon which depends the perfection of physical health. Exercise sufficient to excite perspiration, is daily needful, if we would have the most robust health; and such general exercise, bringing the lungs into more vigorous action, greatly promotes their expansion and health. In addition to general gymnastic exercises, and the various out-door games, the following exercises are especially worthy of note:—walking, at the rate of at least three to four miles an hour, particularly with a companion;—riding on horseback, a gentler form of exercise which, the body being supported, may be prolonged much beyond the preceding, with the advantage of fully engaging the mind between the care of the horse and the rapidly passing scenes;—rowing, the body again

supported with alternating action and rest of the muscles,—and lastly, hunting, for one fond of the sport, who, with gun on shoulder and a fair prospect of game, will endure an amount of exercise to which, without these accompaniments, he would be entirely unequal. That these forms of exercise require the open air, is a special recommendation.

Can it be necessary here to urge the value, the absolute need of pure, fresh *air*? How strangely is this point overlooked by the community in general, and even by many physicians. The experience gained by our soldiers in this matter during the past war, if the coming generation will but profit by the lesson, we might almost say is well worth the cost, putting the lives lost against lives to be gained. With our tightly ceiled houses, our closed fire-places, our horror of drafts, leading us to shut off every avenue of the ventilation essential to health, we were indeed rapidly becoming an enervated race, unfitted to occupy the places once filled by our sturdy forefathers.

To derive the full benefit of fresh air, it is scarcely necessary to premise that it must be made free use of. Much is said, and justly, of the pure, bracing air of Minnesota. Yet those who go there to shut themselves up in the hotels or boarding-houses, gain little more than they would at home. An instructive case came under the writer's observation there, during the summer of '62. A lady in feeble health, with a tubercular deposit and accompanying cough, came to try the effect of the climate. Having improved but little after a month's stay, she joined a camping party of ladies and gentlemen, and with an open two-horse wagon and tent for the night, they started out. The third day, toward dusk, they lost their way, and it was after nine o'clock in the evening, ere water was reached, where they might encamp. Notwithstanding this prolonged exposure to the falling dew, in an open wagon, this lady took no cold, while a similar exposure, a few days before, had produced a serious aggravation of her symptoms. This diminished susceptibility to taking cold was, unquestionably, due to the uninterrupted exposure to the open air for the three days previous. A continuance of the same out-door life, so strengthened the constitution of this invalid, that in two months thereafter she was sleeping with impunity with the air blowing freely across her, from a window on one side of the bed's head to another at the foot. A similar experience of life in the open air has been repeated in numberless instances among the young men of our army; delicate young men going out to camp life against the remonstrance of friends and advice of physician, have returned in improved physical development, notwithstanding untoward circumstances of fare and fatigue, with the same story,—“they could not take cold in camp.”

Let then those dreading consumption, as well as those attacked, give to the pure fresh air every facility to invigorate their constitutions. Let them be out of doors, to breathe it, of course with sufficient clothing, whether the weather be fair or inclement; let them admit the air freely into their living rooms, and especially into their sleeping apartments. One-third, or thereabouts, of our lives we spend in bed do we consider what our physical frame must lose in being deprived of pure air for so great a portion of our lives? Would you admit a draft? Yes; as soon as the system has gradually become habituated to it, let the air blow in freely, without let or hindrance, if not across and through the room, at least from one side. Little do those sleeping in close confined bed-rooms suspect the refreshment and invigoration of a night's rest, with the pure cool air passing freely over the sleepers' face; and still less, having once enjoyed it, would they return to their former habit. I speak from experience.

The direct effect, upon the respiratory action, of breathing an impure atmosphere, may be most readily observed, if from active exercise in the open air, one takes up with a sitting position in a close crowded room. At first there is a painful oppression for breath; after a time, the elasticity of spirits felt out of door is replaced by dullness and more or less drowsiness, while the respiration, before so deep and free, becomes shorter, shallower, and entirely abdominal,—the lower portion of the lungs alone participating in the respiratory movement. The usual desire for breath even is greatly diminished, and an evident effort of the will is required to overcome a certain repugnance to a deep inspiration, as if the lungs refused to receive what fails to answer their purpose. We observe, then, that continued confinement in impure air, not alone by lowering the vital powers of the system, and so indirectly, but also by a direct action, reduces the extent of the breath motion,—thus taking away that great safeguard against tubercular deposit. The well-known predisposition to Phthisis in the negro, when migrating to colder climates, as from South to Canada, is doubtless largely due to the fact, that, dreading the severe cold of winter, the blacks are huddled together in the impure air of confined rooms, instead of strengthening their lungs by exposure to the keen, but bracing, atmosphere of those northern climes.

In a report of the sanitary statistics of Massachusetts, during the years 1845 to '48, a suggestive fact is noted. "The number of females perishing from Consumption between the ages of 20 and 30, is nearly double that of the males. In the country towns, the proportion of the two sexes is 39.01 males to 60.99 females, while in New York

City it is 42.08 to 57.92. What are the peculiar causes affecting females in the country, predisposing them to this disease?" is a question asked by the reporter, and answered easily enough. In the country, the males generally are out of doors throughout the day, and their exercise is of a nature to develop the muscles of the chest, while the females are as constantly indoors, and engaged in labors which give the least play to those muscles,—but the same difference in the out and indoor occupations of the two sexes does not hold good of a large city like New York. Do not these facts throw much light upon the value of exercise and air in the treatment of our consumptive patients?

In his *Medical Inquiries*, published in 1789, Dr. Rush tells us that "the radical remedy for Consumption is long continued horse-back exercise;" but to derive the full benefit from this advice, as another well expresses it, "the patient should be a Tartar, and *live* on his horse." This admirable prescription may not be feasible in all cases, yet all successful treatment must carry out the principle upon which it is based,—that *air and exercise* conjoined are *essential* to the cure of Consumption.

Let me here cite an instructive case, bearing on this point. In Dec., 1858, for hemorrhage from the lungs, the writer was called in to see an Englishman, twenty-eight years of age, of large frame, yet quite thin and stooping. Under one clavicle was a tubercular deposit of two inches or more, which, in connection with the general prostration of his system, led me, notwithstanding my general hopeful views of Phthisis, to feel that the case was a very doubtful one. However, he improved much, and so continued, though unable to return to his trade, that of a horse-shoer, till the early part of February, when, fearing the spring months in New Haven, by my advice he went to visit a brother, most fortunately for him located in the mountain region of Penn., near where the Susquehanna crosses the New York Line, taking with him one special direction, "to be out of doors all he could." The last of May he returned, one would scarcely believe the same person, walking erect, shoulders well back, of good flesh and color,—the dullness under clavicle evidently diminishing. His story was, that at first he could walk out but little, though often, each day. As he gained strength, he tried working with his brother at chopping wood, and now, for some weeks past, he had been swinging the axe regularly from morning to night. The Horse-shoer's Union, of N. Y. City, of which he was a member, and with which he had filed an application for the weekly allowance given to sick members, on his

claiming in person his back dues when he returned, declined paying them, without an unusual amount of documentary evidence,—the officers of the Society not crediting his statement of having had Consumption. His health continued to improve until, on his removal from New Haven, he was lost sight of. To exercise with the axe, in the pure mountain air, we must believe he owed his recovery. It must not be overlooked, that in the outdoor air we obtain the fullest exposure to the vivifying influence of sunlight, deprived of which, animal as well as vegetable organisms become blanched and sickly.

From what has been already stated it will readily be seen, that of the various occupations and trades, such as are practiced in the open air, and particularly if they require exercise of the upper extremities, are most desirable for those with pulmonary tendencies, while the most pernicious of all, are those indoor occupations, in the prosecution of which a fine dust is inhaled into the lungs, to be added to the epithelial debris perhaps already accumulating there. It is hardly necessary to remark, that those engaged in such occupations should take every means, whether at or off work, to secure a free supply of pure air, and the utmost possible development of the respiratory apparatus.

In this inquiry into the methods of raising the physical frame to its highest vigor, the question of *diet* comes in for a prominent share of attention. And the more so, as the habits of our people are much at fault in this respect. In both the quantity and the quality of our food, I am persuaded that, with few exceptions, we daily overtax our digestive organs. As a consequence, in time they become weakened, gradually losing the ability to elaborate a due supply of nutriment to replace the daily wear of the system in health, and are found to be yet more wanting when most needed,—when the inroads of disease have weakened all the bodily powers. Of especial importance is this matter to one dreading the attacks of tubercular disease, for in the majority of cases, the condition of the digestive apparatus decides the question whether pulmonary deposit shall go on to the destruction of lung and life, or the powers of the system shall avail to clear away the obstruction and effect a return to health.

It certainly seems as if the training Americans receive from youth up in the management of the appetite, were designed to ruin the digestive powers, and to bring on a premature old age. Nothing is denied our youth that the tougher stomach of the adult can dispose of, and this, not alone at meal time. Between the meals, at unreasonable hours, through mistaken kindness, or to quiet the appetite heretofore thus fostered, pastry, cake, and the like, are even forced

upon the child, who, at the next succeeding meal, must either refuse to partake, thus breaking up all regularity of eating, or tempted by the rich food, and because others are eating, he stuffs himself, until at last the overloaded stomach refuses to work longer, and a fit of indigestion yields it a constrained rest. Nor is the temporary inconvenience the only one. The habit is formed of eating beyond and without the appetite, beyond the need, and so, after years of similar self-indulgence, the failure of the overtaken stomach to elaborate sufficient nutriment is manifested in a softened brain, or in the degeneration of some other important organ.—Where is the remedy for all this? In one or two simple rules. We must learn to eat no more than is absolutely required for the wants of the body, or as it is well expressed, “to rise from the table with an appetite;” and secondly, we must shun as poison all indigestible articles of food. How in the name of common sense could anything so difficult of digestion as pie-crust ever have come into such general use among us? Economical perhaps it may be for the house-keeper, but sadly extravagant for the poor eater’s stomach! The flour, as albumen, requires digestion in the stomach by the gastric juice; the fat is digested in the duodenum by the pancreatic juice; a different destination for each component part, and yet, by the agency of heat, each atom of flour has been bound up in almost a chemical compound with its atom of fat. Can aught but the most powerful efforts of the stomach untie the knot? And what shall we say of newly baked bread, with the yeast plant not destroyed by a sufficient continuance of the oven’s heat? Compacted into tough masses in the stomach, it is long ere the gastric juice, which if strong enough might yet kill the yeast, can penetrate to the center, and so the yeast, sprouting and growing in the warmth and moisture, soon transmits the doughy material into a mass of fermentation, to be disposed of, how?—the poor struggling yet faithful stomach alone can tell the tale. Whose stomach can long stand such hard usage and not fail at last? No wonder the nervous, pale faces we see about us, martyrs to dyspepsia, self-immolated. To enumerate all the ‘indigestibles’ in common use is not necessary. The judgment of man, though not his practice, may be trusted on this point. One evil however, requiring a passing notice, is the inordinate use of fluids, especially of cold water. The injurious effect of this practice in diluting the gastric juice, and thinning the blood, may be witnessed in the anemia and nervous prostration of those addicted to it. No doubt the habit is often formed in childhood, by an uneasy desire for something passing over the palate, perhaps from the congested condi-

tion of the over-worked stomach, or it may arise from our custom, at the outset of a meal, of supplying some warm sweetened drink, as tea or coffee, to be drank not merely to quench thirst, but as a regular part of the entertainment.

But let us not by any means underrate the vital importance of a sufficiency of hearty, wholesome food, or of fatty articles of diet. In our land of plenty, but two classes in good circumstances are likely to suffer in this respect,—infants, about the time of weaning and onward, who giving up their animal food, the mother's milk, are often restricted in the use of fats and animal food, and those tending towards Phthisis, who voluntarily restrict themselves. The latter class, indeed, might almost be pointed out by their uniform rejection of fats. It is very desirable that such be habituated, freely, to partake of butter, cream, milk, and fat meats, (if the stomach can be trained to receive the latter). I would never press the eating of fat meat; other forms of fat may be substituted for it; and experience has convinced me that the difficulty with which in the stomach the gastric juice reaches through to the albuminous envelope of the inner oil globules, ere they can be set free to pass on into the duodenum, renders the digestion of fat meat so slow a process as to tease the stomach, often causing it entirely to reject the offending substance.

Our civilized way of baking bread is most unfortunate, as regards the weak digestive powers of those tending to Phthisis. In the effort to secure white, fine-looking bread, the bolting sifts out from the flour the greater part of the Cerealin, nature's digestive ferment, and then comes in the yeast fermentation, to destroy the little that is left. It is to be hoped that some method may be discovered of making nutritious and palatable bread, without yeast, like the Areated Bread, so-called, (made by forcing fixed air into the dough by machinery,) which at the same time, shall be practicable for household manufacture. In the mean time, we may have recourse to the various combinations of wheaten, unbolted or Graham Flour, made without yeast, and to the solid wheat or oat grain, which, cracked and thoroughly cooked, is exceedingly digestible, nutritious, and admirably adapted to children's use.

Another point of great hygienic importance is, a due attention to the condition of the *skin*. A glandular apparatus covering the whole body, with an average daily perspiration of nearly two pounds of fluid, from two miles and a half of secreting tubules, and exposed to ever-varying alternations of temperature, must exert a powerful influence upon the health of every part of the system. Indeed, it has

even been suggested, that the clogging of the cutaneous secretion, from continued neglect of cleanliness, or the like, often prove an indirect cause of Phthisis, by throwing an increased burden upon the lungs. We well know that the sudden checking of the secretions of the former is very likely to be followed by congestion and inflammation of the mucous membrane of the latter.

The best means of fortifying the system against these sudden attacks of cold, is of much consequence to one fearing Consumption. Life in the open air has already been commended in this connection, but such radical treatment is within the reach of very few; yet there is a means of protection against these atmospheric changes, accessible to all, which is sure and simple. The cold sponge bath faithfully used each morning, may be relied upon to afford the system this desired immunity against ordinary colds. No elaborate or costly apparatus is required; a bathing mat, or preferably, a bathing-pan, with flaring sides, a large stout sponge, coarse towels and a bowl of water, are all that is needed. What is of more difficult supply, is the moral courage required to rise from a warm bed on a winter morning, to encounter the shock of the cold water. The reaction following the first shock of the cold water, sends the blood with greater vigor through the capillary circulation of every part, giving renewed life to every function. Especially is this true of the skin, which, in addition, is cleansed of the exuviae of daily perspiration, and at the same time, by its exposure to so great a change of temperature as that of the bath, is hardened to resist the lesser exposures which are of daily occurrence. Of course, to derive any benefit from the bath, it is essential that full reaction should follow it. This is promoted by seeing that the skin is warm and the body not fatigued before the bath; by the suddenness and short duration of the application of cold water, and by vigorous friction afterward. For a feeble person, it is desirable that the air of the room be quite warm. It may be well to increase the activity of the capillary circulation by dry friction, with rough towels or hair mittens, for some mornings previous to the first trial of the bath. If for sufficient reasons one is unable to bathe the whole person, immersing the feet on a morning in cold water, with subsequent thorough friction, will be of great service in preventing the coldness of the extremities, so apt to result in taking cold.

The protection to the skin against atmospheric changes which the *dress* affords, is a matter bearing strongly upon the health of the lungs, and of late rather more than formerly, has been regulated by

the dictates of common sense. The value of woollen clothing next the skin, of warm, thick coverings for the extremities, especially the feet, is becoming more generally appreciated and adopted. Yet there are still to be found those of more vanity than discretion, enough to furnish quite a crop of Consumptives for some time to come.

Since we attribute so much importance to exercise, it follows that the dress should be so constructed as to afford full play to all the muscles. A lady's dress, with the shoulder seam some two or three inches down the arm, presents no little obstacle to raising the elbow even to the level of the shoulder,—especially when a tight fitting waist farther imprisons the respiratory muscles. The other sex are more fortunate in the fashion of their dress, yet caution is needed that the upper garments do not bind or button tightly across the front of the chest.

Many other minor points, bearing upon the question of physical vigor we have not space to notice. Excesses of any kind, late hours of retiring and rising, the abuse of alcoholic liquors, or the use of tobacco, should be shunned by all who have reason to apprehend pulmonary deposit.

We have before us, then, the following means by which to insure the health of the lungs and the body in general. First, bearing upon the lungs directly,—deep methodical inspirations, and the special development of the respiratory muscles; secondly, upon the lungs and the whole system conjointly,—active muscular exercise, the free use of fresh air, a diet nutritious and digestible, and suitable care and protection of the skin.

Who will not acknowledge that if these suggestions were faithfully carried out by any one in health, that for him Phthisis is well nigh an impossibility? For my own part, I could almost guarantee exemption from the disease to any one who will, six times in the course of each day, and in the open air, thoroughly inflate the lungs in the manner before described. Even in a most unfavorable case, where overburdening care or grief is pressing down the spirits, impairing the digestion and every vital process, if the requisite pains be taken to keep the lungs expanded, may we not feel assured that these organs, at least, will be able to stand the pressure. If this is so, is there any reason why one person among the thousands of our State now in health, if he may be made acquainted with the principles herein set forth, and no physical or mental defect interpose,—is there one such who from that time need fall a victim to Chronic Phthisis? It may require a little patience and perseverance, and the summoning up of all one's energies,

but it may be done; aye, even when the torpor of the deceptive disease, like the death sleep of the snow-benumbed traveler, is already settling down upon him,—if he will but go resolutely forward to what is for him, for the time, the business of his life,—there is hope for him yet.

But some one may ask, is not Phthisis a hereditary disease, transmitted from father to child, and will not those be ever found, whom, even from their birth the disease has marked for its own? The disease itself is never transmitted, though the tendency to it, in the physical formation or mental temperament of the offspring, may be; yet this tendency has, doubtless, been greatly overestimated. Dr. Walshe draws the following conclusion from an analysis into the family history of 446, that “Phthisis, in the adult hospital population of this country, [Great Britain,] is, to a slight amount only, a disease demonstrably derived from parents.” And other observers corroborate this opinion. Chronic Phthisis is a disease acquired by education and training, rather than inherited. The wild beast in the menagerie, whose parents still roam their native wilds, dies often of Phthisis, developed by its new, unnatural life.

But however strong be these hereditary tendencies, how thoroughly they may be eradicated, will readily be seen from the facts already considered. To do this,—to attend to the physical education of the child, is a duty, sadly neglected, to be sure; yet as surely a duty as to provide education for the mind. For of what avail, for this world, is learning without health, or knowledge without the ability to use it? Still more is the obligation imperative upon those parents, in whose families tendencies to Phthisis have manifested themselves, to take every means to secure the most robust health for their children, from infancy up. Yes, upon every parent or guardian devolves the imperative duty of seeing that the child, from its infancy, is properly protected with warm clothing; is allowed an abundance of pure air and sun-light; that its living and sleeping apartments, the nursery and the school-room, be well ventilated; that bathing be made an essential feature of family arrangements; that the diet be plain, varied, and nutritious, and that proper habits of self-control in eating be acquired; and that exercise sufficient to the healthful development of all the muscles, be methodically practiced. Upon a due attention to these matters, not only the health, but the happiness and the future usefulness of the child depends.

Before the years of self-dependence, the responsibility in these matters must rest upon the parent or guardian; the duty of discharging

this obligation is inherent in the family relation ; it may not be evaded, for it is laid upon each parent by the Great Parent of all. Nay, even back of all this, parents themselves owe it to the offspring which may yet be given them, to use their mature judgments in invigorating their own health, especially in strengthening the organs of nutrition, upon whose perfect development and preservation so greatly depend the future constitutions of their posterity. When this shall be done; when the parents of the present and coming generation shall fully recognize and discharge their duty to their offspring; when each individual, for himself, shall understand and obey the laws of health; then may we confidently expect that, in its chronic form, this disease, now so dreaded, the scourge of our present civilization, will be but a thing of the past.

For ourselves, as physicians, as conservators of the public health, it is our special duty, in our practice and by our teachings, to enforce upon the community the great truth, that *the full development of every part of the system*, in other words, *the most complete physical training, is the only, and yet the sure, safeguard against the common form of Consumption.*

ARTICLE XV.

**THERAPEUTIC VALUE OF MERCURY
AND ITS PREPARATIONS.**

"Amicus Plato, amicus Socrates, sed magis amica Veritas."

IVES PRIZE ESSAY.

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SCIENCE is essentially progressive. Year by year, from out the boundless ocean of Truth, she is gathering new treasures of fact and thought. In the department of medical science, this progress, for some years past, has been especially rapid. More exact and thorough research, with the aid of the microscope and the chemist's laboratory, has brought to light one discovery after another, in Physiology and Pathology, in Materia Medica and Clinical Medicine, till the general practitioner, amid the over burdening routine of daily duties, almost despairs of keeping pace with a science of which he once thought himself a master.

Nor is it alone that new facts are discovered, and new principles evolved. Cherished dogmas of the past, receiving a full assent in the dimmer light of an earlier day, are now brought to the test of a more enlightened criticism, to stand or fall as the truth is in them. In this ceaseless search for truth, especially in the rigid sifting of the chaff from the wheat, do we find the strongest assurance of the stability and final triumph of legitimate medicine.

The topic proposed for this essay is one upon which professional opinion has been much unsettled of late. It may be aptly introduced in the language of a standard authority in medical matters, (Dr. Bennett of Edinburgh,) who says:—

"In the present state of science and art of medicine, there is no point in therapeutics which so utterly requires re-investigation, as the real value of the therapeutic effects attributed to mercury."

In this essay, the writer does not pretend to any new or original investigations into the practical operations of this powerful agent. It will be his endeavor carefully to inquire into the properties of the article in question, to consider what evils attend its use, and

then, with impartial judgment seek for such conclusions respecting its real therapeutic value, as our present knowledge will warrant.

The use of mercury as a medicine was derived from the East, and became general in Europe about the time of the alarming spread of Syphilis, in the 15th Century. At first it was restricted mainly to the treatment of that disease, and was employed only in the form of external application, by inunction or fumigation. A century afterward it came into use as an internal remedy, but it was not till near the close of the last century, that the belief in its antiphlogistic properties became general; a belief which, however, has never prevailed on the Continent of Europe to the same extent as in Great Britain and this country. Since that time, mercury has been prescribed in almost every disease, and in pathological conditions the most diverse, until the prevalent impression of the power of this remedy had, at one time, become so exalted, and yet so indefinite, as almost to justify the sarcastic aphorism,—“When you don't know what to give, give Calomel.” More recently, there has been a disposition among the leading minds of the profession to question the claims of this mineral; and certainly, its use has very much declined of late.

In the endeavor to ascertain the generally received idea of the *modus operandi* of this medicine, one is struck no less by the multiplicity of diseased states to which authors believe it appropriate, than by the vagueness of the hypotheses, by which they would explain its action. Many of these theories are evidently due to the crudity of physiological knowledge at the time they were presented. Some have thought that mercury acts mechanically by its weight, divisibility and mobility; others have attributed its peculiar properties to some imaginary chemical action; others again, looking to the kind of action it produces in the system, consider it a stimulant, a sedative, a tonic, an alterative, or as possessing a combination of these qualities. The U. S. Dispensatory informs us, “Of the *modus operandi* of mercury we know nothing, except that it probably acts through the medium of the circulation, and that it possesses a peculiar alterative power over the vital functions. This alterative power, at times, is attended with certain obvious effects, indicative of the agency of a potent stimulus.” In this uncertainty of medical authorities, we are thrown back upon the right of private judgment, and are left to form an opinion of this, as we should of any remedy, from study of its peculiar physiological action upon the organism in health, and its observed operation in disease, deducing thence such theory of its action as seems best to accord with the facts on record.

Inquiring, then, into the *physiological action of mercury*, we perceive, at the outset, that it is in some way directly antagonistic to animal life, and this, whether in its corrosive compounds or in its metallic state. The smaller living organisms, as insects, are rapidly destroyed by it. We are all familiar with the effect of the Ungt. Hydrargyri upon pediculi pubis, and other parasites. Experiments prove that the eggs of flies, and other insects, fail to be developed under circumstances otherwise favorable, if placed over mercury. Hens' eggs, thus situated, failed to hatch, while the chick already formed in some of them, perished. Upon the larger animals and man, its effects are alike in kind, though of course not equal in degree. In Idria, Austria, in the district infected by the mercurial fumes thrown off by the roasting of the ores, the annual mortality is more than 1 in 40; while premature births and abortions are very common among human beings, and even animals. The same marked tendency to abortion, and to feebleness of themselves and offspring, is witnessed among male and female operatives exposed to mercurial vapors; while the mortality among such, especially among the Austrian miners, notwithstanding every precaution to prevent it, is so great, that higher wages are given to counterbalance the risk to health and life.

The effect of mercury is very decided upon the nervous system. The feeling of prostration so often produced even by an ordinary purgative dose, is well known. This nervous depression, by continued exposure, especially to mercurial emanations, as in case of miners, mirror and barometer makers, and the like, may go on to shaking palsy, the so-called mercurial tremblings, or even to epilepsy and apoplexy. Mental imbecility, it is asserted, has resulted from such continued influence of the metal upon the brain and nervous system.

If mercury be taken in medicinal doses, we find that the activity of the secretions is increased; if its use is still further continued, so as to fully develop its effects, Dr. Stillé informs us, that "the appetite fails, digestion is impaired, the secretions become still thinner and more copious; the firmness of the tissues diminishes, newly formed callus is dissolved, and recently healed wounds open afresh; the muscles waste, the skin has an earthy paleness; the eyelids and ankles become œdematous, and even general dropsy may ensue."

In the rapidly developed paleness of the skin, we have ocular evidence that the corpuscles of the blood are either largely destroyed, or their necessary repair is prevented, probably both. Dr. Farre tells us, as quoted by Pereira, "a full plethoric woman, of a purple red complexion, consulted me for hemorrhage of the stomach, depending

on engorgement without organic lesion. I gave her mercury, and in six weeks blanched her white as a lily" (!) The experiments of Dr. Samuel Wright, quoted by Christison, have determined that the blood of those under the influence of mercury becomes more watery than in health; is loaded with a fetid fatty matter, [the result, evidently, of degenerative processes,] and is more prone than usual to decomposition.

Now then, observe these prominent points;—that under the influence of mercury, the eggs or the foetal young of animals fail of development, and become abortive; that in the perfectly developed animal, new, and therefore feeble, formations, as the recent callus of bone, or the cicatrices of wounds, are dissolved; that the corpuscles of the blood rapidly disappear, and an excess of fat is formed in the circulating fluid; that general emaciation ere long takes place;—do not these facts convince us, that we have here an agent, whose physiological action upon living animal tissue is to destroy its nutrition, in other words, its vitality? We perceive that the ordinary breaking down and decay of the tissue is accelerated by it, while its natural repair is at the same time impeded. Such organic cells as are engaged in secretion, are, in general, stimulated into greater activity, to eliminate the poison from the system; hence the observed increase of secretion caused by mercury. The other cells, less able thus to throw out the poisonous substance from their interior, more markedly display the deadly tendency of the drug in their disintegration, and sooner or later a similar effect will likely be felt in the cells of secretion also. Hence result in the nutritive, the muscular, the nervous, the secreting systems, more or less depression of the vital functions, emaciation, general cachexia, and, at last, if the operation of the agent be sufficiently powerful and continuous, death of the entire organism. We believe, then, that the main effect of mercury is to destroy cell life, and that its so-called stimulant effect is simply the effort of the system to expel a dangerous intruder, which possesses the dreaded power of insinuating itself everywhere. Whether it may not be judicious for us at times to employ a destructive agent of such energy, is a question yet to be considered.

The completeness with which mercury penetrates every part, and the prolonged duration of its stay, when once the system is impregnated with it, is truly astonishing, and serves to exalt our ideas of the power for good or ill of this agent. In animals or in man, after external inunction merely, it has been detected in the blood, in the glandular secretions, the urine, bile, milk and saliva, and in the glands

themselves. It has been discovered, in the metallic state, in the bones, "in the brain, the synovial capsules, the pleura, the humors of the eye, in connective tissue, in the lungs," &c. It has been found in the serum of blisters, and in the fluid of ulcers. Two cases are reported of pregnant women aborting during mercurial inunction, where mercury was detected in the bodies of the children.

How long the drug may remain in the system, when once fairly lodged there, we know not. Long after a continued administration of mercury, its constitutional effects may be re-excited by Iodide of Potassium; the chemical reaction of that agent bringing out into activity the mineral hitherto locked up in the tissues. Dr. Stillé cites, with authorities, the case of a lady, a year after salivation, on being heated by violent dancing, dark mercurial stains appeared on her breast, and metallic mercury was obtained from her linen. Also, a workman, who for six months had not handled mercury, and yet whitened a piece of copper by rubbing it between his fingers. Such are, of course, extreme cases of mercurial saturation, yet they teach us that we know not the end of the train of effects, which may be set in motion by this powerful medicine.

But any account of the properties of mercury will be incomplete, without a reference to what Van Swieten, a hundred years ago, aptly denominated "the tortures of Salivation." Fortunately, for the credit of the profession, so much milder counsels prevail at the present day, that few of the junior practitioners know by experience how much may be accomplished in this way. Nor is it very desirable thus to know. The sight of a patient with his swollen face, the saliva dripping from his mouth, the tongue protruded and swollen, and the whole interior of the mouth red and tender, the gums spongy, the teeth loosened, the breath horribly offensive, the inflamed salivary glands so painful that he cannot move his jaws, and can plead only with those despairing eyes;—it presents a picture of suffering not very conducive to the peace of mind of the physician, nor suggestive of any very extensive professional success in the future. Following the salivation, may be ulceration, and sloughing of the cheeks and fauces, producing, if the patient recover, disfigurement for life, or permanent adhesions, even to preventing all motion of the jaws. Such ulcerations may occur without a previous salivation, and may also affect other parts than those about the head.

But the question of the physiological action of mercury upon *the Liver*, demands more than a passing notice. The U. S. Dispensatory, but echoing a prevalent impression, states:—"there is no fact better

established in medicine, than that of the influence of the mercurial preparations over the hepatic system, and whether the liver be torpid or obstructed as in jaundice, or pouring out a redundancy of morbid bile, as in *melæna*, its judicious use seems equally efficacious in unloading the viscus and restoring the secretion to a healthy state." Under the influence of mercurials in small doses, it tells us, "the alvine discharges, if clay colored, are generally restored to their natural hue; a certain proof that the remedy is stimulating the liver, and promoting the secretion of the bile."

It is quite time that the profession were disabused of this unfortunate idea, that the change of color in the stools referred to, is an infallible proof of the presence of bile. This change of color of the healthy intestinal contents, from whitish to yellow or brown, does not take place until the *fæcal* matter reaches the large intestine. Even on the theory then, that it is the bile which causes this change, we must acknowledge the operation of some new agency in addition, since the bile has been present all along, from the duodenum down. The only new element to be found here is the glandular secretion of the part. Suppose then we grant that bile is the normal stimulant of these glands; it is after all the secretion of these glands, and not the bile, which is the real agent of the change in question. Is it not possible then, that some other stimulus may induce the secretion of these glands, and effect this change of color, even when no bile is there? Not only possible, but certain. Witness a case, coming under Dr. Bennett's observation, recorded in his *Clinical Lectures*, (2nd Am. Ed., page 456). This patient presented symptoms of intense jaundice, the skin a deep yellow, the urine continually loaded with bile. The autopsy revealed a gall stone, size of a hazel nut, firmly impacted in the common bile duct, half an inch above the duodenum; the liver was an olive green throughout, gall ducts immensely dilated, thickened and filled with dark green bile. "Death resulted from the poisoning of the system through the absorption of bile, the excretion of which was prevented by the firm impaction of a calculus in the common bile duct." Yet in the daily record of the case his stools were reported according to the prevalent idea, "well colored with bile," when of course there could have been no appreciable amount of bile in them. Mercury was administered for eight days, by inunction and by the mouth, and dark green stools testified to its presumed hepatic stimulation. Here we have the theoretical proof of the presence of bile, and of mercurial action on the liver on the one hand, and on the other the stubborn physical proof that no bile could get there,

except infinitesimally through the circulation. Theory and fact at variance—which shall yield?

The observations of Dr. Thudichum, in the *London Lancet* for Oct. 1860, explain the difficulty. He says—"The stools which are passed after the use of purging mercurials, particularly calomel, are supposed to contain more bile than usual. The assumption rests upon the observation that these stools are mostly green—a fact which appears to me to be at the bottom of the whole tissue of errors. The green color of the calomel stools is due to subsulphide of mercury, just as the black color of the stools following the use of the preparations of iron is due to the subsulphide of iron. The subsulphide of mercury can easily be obtained from these stools by levigation or chemical proceeding—so much is proved." It is reasonable to ascribe the scalding of the anus, after calomel or blue pill, to this subsulphide. The change of color, then, of the stools from clay color to brown is proof merely that *some* stimulus, it may, or it may not be, bile, is acting upon the glands of the large intestine. The green color after mercurial purgatives, is merely a proof of the presence of the subsulphide of that matter.

Now it is a little remarkable that this universal belief in the hepatic powers of mercury rests alone upon the theory, (refuted as it is by even one case like that of Dr. Bennett's,) that dark or green stools prove the presence of bile. Besides this theory, there is absolutely no other proof presented to us. In fact, it looks as if all the proof were the other way. For, among the multitudes who have experienced the excessive action of mercury, even to fatal poisoning, no excessive or marked hepatic symptoms are recorded—rather the reverse. In one case, where leathern bags containing some tons of mercury burst in the hold of a ship of war, by the mercurial emanations 200 men were salivated, and two died; yet, amid this mass of cases, nothing displaying hepatic action of the metal was observed worthy of record. And so in other cases of fatal poisoning. Is there anything analogous in the history of other specifics. Can we indeed call that a specific whose claim originating in an error of observation, is never corroborated, even when we might the most expect it should be?

But direct experiments have been instituted to test the question of the hepatic influence of mercurials. Three observers, Kölliker, H. Nasse and H. Müller found that "the addition of calomel to food which under ordinary circumstances produced a certain and normal quantity of bile in dogs, diminished the quantity of bile," (Braithwaite's *Retrospect*, July, '61). The careful experiments of Dr. Geo.

Scott, reported in Beale's Archives of Medicines, are especially decisive. The common bile duct in a dog was exposed, ligated and divided, and an external fistula, leading into the gall bladder, established. The wound healed kindly. That the entire bile secreted was emptied through the fistula, and none absorbed into the blood, was proved by repeated examinations of the urine in the course of the experiments; and the subsequent autopsy demonstrated that no communication had been re-established with the duodenum. The average quantity of bile secreted in the 24 hours, for two days previous and two days after the administration of mercury, was carefully estimated, and every precaution taken to ensure a similar use, or abstinence from, the same articles of diet during the continuance of each separate experiment. The following results in brief were obtained :

Date.	Calomel administered,	Daily average for 3 days previous :			Daily average for 3 days after :		
		Fluid bile,	bile solids,	bile acids,	Fluid bile,	bile solids,	bile acids,
June 13,	3 grains	3044 grs	139 grs.	61 grs.	1358 grs.	70 grs.	26 grs.
" 16,	6 "	1960 "	104 "	32 "	518 "	42 "	10 "
July 3,	10 "	1639 "	77 "	12 "	2720 "	135 "	70 "
" 7,	12 "	2658 "	117 "	57 "	1724 "	850 "	45 "

After each administration of the calomel, we notice a decrease of fluid bile; after the first dose, of 602 grs., the second, 1121 grs., the third, 324 grs., after the fourth dose, 934 grs. (In these experiments Dr. Scott established the interesting fact that calomel purges irrespective of the presence of bile.) To the objection that, even if calomel does not act upon the liver in dogs, it is no proof it may not in man, Dr. Scott replies,—that allowing this, then all our experiments on the lower animals to ascertain the characters of poisons are valueless. Should it be suggested that perhaps calomel acts differently in health from which it does in disease, the Dr. replies, there is no analogous instance of any remedy, diuretic or diaphoretic for instance, which checks in health that secretion which it stimulates in disease. He adds, "whether it be the mere purgative effect of calomel, or some specific action which causes the diminution in the secretion of bile, further experiment must decide."

But if calomel does not stimulate the liver, what action, then, can we assign it in bilious colic and various abdominal disorders, where it is thought experience has demonstrated its power, if anything can be called demonstrated? This brings us to a further physiological inquiry of much importance, which we may now properly consider, viz: *upon what portion of the intestinal canal does mercury exert its peculiar influence?* The clue to the answer is given us by the post-mortem appearances in fatal cases of mercurial poisoning. Although

the mercurial action be excessive in such cases, we find we can readily separate the corrosive action of the compound from that of the metal itself.

In Taylor on Poisons—(Am. Edition of '48, page 322), is related a case of poisoning by two drams of corrosive sublimate; death occurring in four days. Leaving out of view the œsophagus and stomach, as evincing rather the direct inflammatory action of the irritant swallowed, we find,—“the duodenum and jejunum were healthy; there was slight inflammation of the mucous membrane about the lower two thirds of the ileum, and this was more marked towards the termination of the intestine. Near to the cæcum there were several patches of inflammation. The whole of the large intestines were highly inflamed, and there were several small spots of ulceration about the size of a pea. The liver was enlarged and congested; the gall bladder contracted, and containing scarcely any trace of bile.”

Stop here a moment, and let us analyze this case. If the theory were correct, that the hepatic action of mercury were but its irritation of the duodenum propagated along the gall ducts to the liver, we should expect to see decided proofs of such irritation; but the report is “duodenum and jejunum healthy.” It should be remarked that in this case early and copious vomiting, and the free use of albumen, no doubt prevented any appreciable amount of the poison passing the pylorus. The liver is found congested,—no free secretion in any congested organ, and so, in the gall bladder scarce a trace of bile. The stress of the inflammatory action, as reported, evidently falls upon the lower end of the small intestine, and the “highly inflamed large intestine.” How did the poison get there? Certainly it could not have been carried there by peristaltic action along that healthy jejunum. It must have been absorbed into the blood, and *eliminated at this point*. So thoroughly was the poison eliminated in this case, that no trace of mercury was detected by a chemical analysis of the contents of the stomach, of the blood, the spleen, and the serous liquids in the pericardium and peritoneum. From this case, then, we judge that the abdominal influence of mercury is specifically expended upon the colon and the small intestine immediately adjacent; and in an especial manner, of course, upon the glandular structure of this part.

But do other reported post-mortem examinations corroborate this opinion? Let us see. In the same work on Poisons, page 335, we find another death from corrosive sublimate, occurring at about the same interval. “Duodenum tolerably healthy, small intestines healthy, lined with thick, yellow mucus. Cæcum and ileo-cæcal valve

showed signs of most intense inflammation. Colon and rectum, especially the ascending and the transverse colon, also exhibited traces of the most violent inflammation. Here were found oval patches of sloughing mucous membrane, tinged green by the fæces." Page 320, still another case; a scruple taken: "Death occurred on ninth day; the mucous membrane of the stomach was softened, but there were no well marked appearances of the action of the poison in this organ. The cæcum had been the seat of the most violent inflammation, the whole surface being of a deep, black red, color, and there were patches of sloughing in the coats." Page 319,—poisoning by external use of an ounce of corrosive sublimate, fatal on the 5th day. "On inspection, the small intestines were greatly inflamed throughout, and the lower portion of the colon and the rectum in a state of mortification." Page 337,—“Mr. Swan found that calomel given to a good sized dog, in doses of from 3 to 4 grs., night and morning, gave rise to * * * ; death on the 9th day. The stomach and all the thoracic and abdominal viscera were sound, with the exception of some appearance of chronic inflammation in the large intestines. A similar experiment on another dog gave like results.” Page 344—poisoning by Turpeth mineral, (subsulphate of mercury,)—"the small intestines were contracted, the inner coat reddened, and petechial spots were found, but chiefly in the large intestines." Here are all the cases of mercurial poisoning recorded in Taylor's work, with any references to the intestinal appearances; and of course reported with no reference to the question before us. Can any candid reader, with this testimony and such as has been heretofore adduced, escape the conviction that the *specific action of mercury is exerted*, not upon the upper, but *upon the lower portion of the bowels*, and especially the colon?

After demonstrating the fact that the color of the fæces is changed soon after they enter the colon, Dr. Inman, (in Braithwaite for July, '61,) makes the interrogative suggestion—"May not a *clayey diarrhœa*, then, simply demonstrate that the *colon*, and not the liver is sluggish?" Following out the suggestion we naturally now inquire—May not the action of mercury, in relieving bilious colic and the like, be but the normal manifestation of its power in stimulating to action the sluggish glands of the colon and adjacent parts? Our investigations certainly point to such a conclusion; and this belief of the operation of mercury in intestinal disorders, we do not hesitate to adopt.

To sum up, now, this survey of the physiological action of mercury, we believe, first, that mercury is essentially destructive to the cell

life of animal organisms, and this, whether the metal acts alone, or in combination. In this power thus to modify, to destroy the nutrition of the body, mercury is undoubtedly an alterative. We believe that it possesses such extreme divisibility and facility of absorption, that there is scarce any portion of the body which it cannot reach; and that having once effected a lodgment, it may remain there for an indefinite period. We believe that, in the effort to eliminate it from the system, most of the secretions are called into increased activity, especially those from the extremes of the alimentary canal, the salivary glands, and, more invariably those of the colon. We believe that there is no *proof* whatever of its stimulating the secretion of the liver; its effect on the other hand, in cathartic doses, at least, is to diminish that secretion.

Having thus disposed of these preliminary points, we may now come to the main question,—What is the real therapeutic value of mercury and its preparations?

But before proceeding further let us clearly understand the two methods in which mercury may be administered, and the radical difference of its operation according to the method selected. If given as a purgative, in one large dose, the metal is rapidly excreted. Certain experiments of Orfila's would show, that the excretory efforts of the system are more urgent and effectual in the case of mercury than of any other metallic poison. So then, if mercury be administered in one, or in not more than two consecutive doses, we may believe that, in general, it will be entirely carried out of the system. If, however, the same, or a very inferior amount of mercury, be administered in minute, repeated doses, it is mainly absorbed and remains in the system for a sufficient time at least, to produce the constitutional effects of the drug. We except, however, the case of such doses administered to very young children, in whom the very great activity of their excreting organs secures its speedy elimination from the system.

Against the former method of administration—in large doses, but seldom repeated, whose direct action is mainly a local one 'upon the large intestine,' no objection of any moment lies; except so far as the risk of somewhat of the dose failing of speedy excretion, or the chance of encountering one of those peculiar idiosyncrasies, or possibly, an exalted susceptibility to the action of even a single dose, in-

duced by some previous mercurialization. To the latter of the two methods of using the drug, *as an Alternative*, in minute, repeated doses, our attention, then, will be mainly restricted in this consideration of the questioned therapeutic value of mercury.

Recognizing, now, the right and the duty of every professional man, after full knowledge of the facts in any disputed case, to exercise his own judgment in forming an opinion, the writer would briefly give his own conclusions on the point at issue.

And first, from the facts already considered, it would seem reasonable to exclude mercury, whether administered as an *Alternative* or as a *Purgative*, from application to those cases where a decided action upon the liver is desired. With the less hesitation we do this, since, in the *Resina Podophylli* of the U. S. Pharmacopœia, we have an article whose influence upon the liver is beyond question. A word upon the action of this remedy will not be out of place in this connection.

Often, in the experience of the writer, has this remedy been administered to a so-called bilious patient, with a torpid and congested liver, and large quantities of clear bile have been brought away; showing a golden yellow against the white of the containing vessel, as if the contents of the gall bladder had been bodily emptied therein. To cite one case in point, among many others, showing the superiority of this drug. On the evening of April 23d, '65, the writer was summoned to a gentleman, well known in our State, to relieve some presumed disease of the kidney or bladder. Found a well marked case of jaundice; skin deep yellow; the urine excessively irritating, from the amount of bile passing through the kidney. Three nights before, by a domestic prescription, he had taken 12 grs. of calomel, which had produced its usual cathartic action, but with only an aggravation of the symptoms. One dose of the Podophyllin, (2 grs.,) brought away an immense amount of bile, clearing up the complexion, the urine, and the case itself. Complaint is made of the uncertainty of this remedy. A knowledge of the fact that the resinoid is not, of itself a cathartic, will relieve it of unjust imputation on that score. It acts as such only through the amount of bile, (the natural alvine stimulus,) which it may be able to empty out into the bowels, and a cathartic action follows or not, according to the varying condition of the liver in the same individual at different times;—while the tendency to gripe will be in a great degree remedied by the oleo-resin of Ginger or the Tincture of the same, evaporated sufficient to pill. From his personal experience and practice, the writer can hardly recommend the Podophyllin too highly to his professional brethren.

But what shall be said of the application of mercury to the treatment of disease in general? The unskilled beginner in medical practice, where among his *armamentaria* shall he locate this common remedy? Shall it be ever in hand, ready for daily, constant use, or shall he hold it in reserve for special occasions?

Consciously or not, every physician, we believe, adopts as his rule the valued maxim, "*Tuto, cito, jucunde curare*,"—to heal safely, quickly, pleasantly. First, '*safely*;'—and well it would be if this were always first with every practitioner,—if he would resolve, that at all events he will do no harm, if he do no good; for, in medicine not less than surgery, we handle edge tools. With this maxim before us, and looking at the immense amount of evil that all acknowledge may follow "the injudicious use of mercurials," we inquire, first of all, is mercury a safe remedy?

Turning to Taylor on Poisons, we are surprised to learn that, "Calomel, although commonly regarded as a mild substance, is capable of destroying life, even in comparatively small doses." Cases are given. Two-thirds of a grain, administered for 3 days (2 grs. in all) to a boy 8 years old, "produced most violent salivation, sloughing, and exfoliation, from which he was some weeks in recovering." A little girl of 5 years, for 3 days daily, took 3 grs. of Hydr. c. Oretâ;—sloughing of the mouth, and death in 8 days followed. A girl of 19 years took 3 grs. of blue pill, twice a day for 3 days, (18 grs. in all;) salivation and death in 12 days. A boy of 14, taking at one dose 6 grs. of calomel, died in three weeks from inflammation of the mouth, and gangrene. "Pereira mentions the case of a lady killed by one dose of 20 grs. of calomel; had previously taken a moderate dose without sufficient effect." A girl, aged 11 years, took, in 24 hours, 8 grs. of calomel for an attack of Tracheitis: died in 8 days from inflammation of the mouth and fauces." Other cases still, are reported in Taylor's work; how many hundreds are there, who have found no reporter,—how many of disastrous results following full doses, which the physician was unwilling, even to himself, to acknowledge to have been the effect of the drug? Yet enough are known to make any conscientious physician feel that mercury is far from being a safe remedy. In cases of extreme effect from small doses, it will no doubt be said, "Ah, that is the result of a peculiar idiosyncrasy;" but who is to know when and where he is to run upon one of these peculiar idiosyncrasies, until he shall have made the unfortunate experiment which fills him with consternation. And when once the peculiar effect of mercury has been induced, is there not often developed a peculiar sus-

ceptibility to the drug, that may astonish the careful prescriber, on his next essay, by results out of all proportion to the amount of the remedy? No, we cannot call mercury a *safe* remedy; it is a poison, more or less of whose poisonous influence will be developed, if it be used continuously; and yet its peculiar, alterative action on the system is to be attained only by this continuous use. And it must not be forgotten, that the injurious effect of any poisonous medicine is more protracted and uncertain, if it be a metal, than if it be of vegetable origin, since the metal is a primary element of matter, and therefore capable, if once fairly lodged in the system, of preserving its independent existence indefinitely. Vegetable forms, on the other hand, are unstable, being compounded of the same primitive elements as animal substances; and hence, after exerting their peculiar action become disintegrated, and lost in the general mass.

We feel, then, that for its constitutional effects, mercury can be properly used, if at all, only in extreme cases, where, choosing the lesser of two evils, we esteem the threatened danger of the remedy less than the actual evil pressing upon the patient, and where also no other safer remedy can be found as a substitute.

But, perhaps it will be more satisfactory briefly to consider the therapeutic value of mercury in the treatment of those special diseases where once it had been thought a "*sine quâ non*." *Pneumonia*, with its visions of the lancet and wet cups, the bleedings, "*coup sur coup*," tartar emetic, starvation diet, and colic "*pro re natâ*"—how changed its treatment! Since experiments in various hospitals many years ago, in some of which the writer was a witness and participant, where the milder cases of this disease were treated with invariable success, with no internal medicine, the antiphlogistic effect of mercurials can no longer be deemed indispensable. Of the two, we prefer a stimulus to the mercurial. Hear Dr. Bennett, (2d Am. Ed., page 636,)—"In this decided case of *Pneumonia*, with absence of chlorides from the urine, we had an opportunity of observing the effect of mercurial salivation on the progress of the disease. Contrasted with other cases, the disease was in no way shortened. The unpleasant effects produced by the mercury were not only so many increased evils, * * * but the cause of prolonging the convalescence." "He could not eat until the 26th day, in consequence of a coppery taste in the mouth. But as soon as nutrients could be taken, he recovered rapidly. No fact could better demonstrate the utter uselessness of the drug, and its occasional mischievous effects."

In inflammation of the various *serous* surfaces, the efficacy of

mercury has been generally thought to be beyond controversy. So judicious a writer as Dr. Graves, treating of Pericarditis, observes:—"how unavailing will be our best directed efforts, unless they be succeeded by speedy mercurialization of the system." Dr. Fuller hesitates not to say, "that no case of pericarditis, occurring in a strong and healthy person, can be safely treated without mercury." It would appear that they, in common with many others, thought such an established fact; but is it, in truth, fact, or theory only?

Hear testimony on the other side. That eminent authority, Dr. Walshe, declares, in reference to this disease, "it must be conceded that any precise evidence before the profession fails to demonstrate the alleged prowess of the mercurial."

Dr. Robert Bentley Todd, in his Clinical Lectures, while upon the subject of rheumatism, expresses the opinion:—"Mercury does not in the least guard the patient against what may be termed the accidents of his malady, those severe internal inflammations, pericarditis, endocarditis, pneumonia, pleuritis, peritonitis. I have more than once seen pericardial inflammation supervene, while the patient was in a state of salivation." A case in point is referred to among those he is lecturing upon.

Dr. T. R. Chambers, in the recently published volume of his Lectures, states a case occurring ten years since, where he put a rheumatic patient, "a fair, young girl of 16," under the influence of mercury, with the purpose of warding off inflammation of the serous sacs. Pericarditis, in its most virulent form, came on, and patient died in the height of it. He does not give mercury now in pericarditis.

Dr. Bennett tells us, (page 531, op. cit.,) "I have now given it [mercury] in many cases, two of which are recorded at length, (Cases LXXXVIII and XCII,) but could never satisfy myself that it had the slightest influence in forwarding or modifying the natural changes which occur. The best evidence on this subject, however, is to be derived from a careful analysis of forty cases of acute rheumatic pericarditis, by the late Dr. John Taylor, in which mercurial ptyalism was produced, with the following results: 1st. Ptyalism was not followed by any abatement of the pericarditis in twelve cases. 2d. In one case ptyalism was followed by speedy relief. 3d. In two cases ptyalism was followed by diminution and then gradual cessation of pericardial murmur. 4th. In one case pericardial murmur had been diminishing for some days before, and it ceased soon after ptyalism was produced. 5th. In one case pericarditis and pneumonia both increased in extent and intensity after ptyalism. 6th. In four cases

pneumonia supervened after the establishment of, and therefore was not prevented by, ptyalism. Was it caused by it? 7th. In three cases, endocarditis supervened after ptyalism. 8th. In six cases ptyalism was followed by pericarditis. 9th. In one case ptyalism could not be produced, and yet the pericarditis went on favorably. 10th. In two cases ptyalism was followed by extensive pleuritis. 11. One case was followed by erysipelas and inflammation of the larynx. In two cases rheumatism continued long after ptyalism was produced. Thus, out of the forty cases, only four can be said to have become better after the mercurial action on the system was established, and in these there can be little doubt that it was purely a matter in coincidence."

Iritis is another form of inflammation in which mercury has been regarded as specific. In his work, before cited, Dr. Bennett gives us the details of a case of double rheumatic iritis, with conjunctivitis of the most severe description, which he resolved to treat without mercury. The case was watched with much interest by the clinical class, and by the ophthalmic surgeon to the Infirmary, who predicted the worst consequences. The Dr. says:—"notwithstanding the weakened condition of the patient, when iritis came on, the severity of the disease in both eyes, and the apparent closure that was about to take place in one pupil, I persevered, and the result in perfect recovery justified my expectations;" and in a period quite short under the circumstances. He adds:—"the case demonstrates that most severe attacks of rheumatic iritis may get well altogether independent of mercurials, and active antiphlogistics; and of 64 cases of iritis, (reported in the Med. and Surg. Journal for 1856,) of every degree of severity, including the idiopathic, traumatic, rheumatic and syphilitic varieties, treated by Dr. H. W. Williams, of Boston, Mass., the results, with four exceptions, which were neglected at the outset, were perfectly good."

Surely, these statements are worthy our serious attention. If the question be whether mercury is *essential* to the cure of these diseases, a single negative case like one of these outweighs a dozen, a hundred, where recovery has followed the mercurial course. And if mercury be not essential, who would not prefer to do without it, and thus avoid all possible risks of damage to the patient's health and comfort, and to the feelings and the reputation of the practitioner?

In *Peritonitis*, we find mercury is recommended, but the writer has witnessed such satisfactory results from the non-mercurial treatment, that he is at a loss to assign any reason for its use in that disease.

In the treatment of *Dysentery*, mercury has been much relied upon.

by some. The rationale of its favorable operation in Inflammation of the Large Intestine, it may be difficult to explain upon the pathological views we have heretofore advanced, yet if a reliable experience sustains the belief in its curative powers, we are bound to accept it. But a most reliable observer, Dr. Austin Flint, tells us, (in his recent work on Practice, page 315,)—"The pathological view [of those advocating mercury] is purely conjectural, and clinical observation fails to furnish evidence of any special curative influence to be derived from mercury. The recovery, when treated with mercury, is, of course, no proof of its value in any disease which, like sporadic dysentery, tends intrinsically to recovery."

It is a matter of no little surprise to find that some authors recommend mercurials in *Typhoid Fever*; and such practice is followed by many physicians of this State.

Dr. Stillé, in commending mercurials, makes this strange statement; that "the advantages of purgative treatment in this disease appear now to be well established."(!) Purgation, anything tending to aggravate the already existing inflammation of Peyer's glands, is to be dreaded by the careful physician, increasing, as it does, the intensity of the disease, and at the same time draining off the strength necessary to carry the patient safely through. Why ever, in Typhoid Fever, mercury should be administered, unless the loaded state of the bowels at the outset of the disease demands a cathartic, is a thing utterly incomprehensible. The great effort of the rational physician is, to sustain the patient's strength, until he shall have reached the appointed limit of the disease, (usually three weeks,) when recovery ensues, as a matter of course. But the specific action of mercury, increasing the already too rapid waste of the tissues, reduces the depressed vital force. And besides this, there is a particular inappropriateness in the use of mercury, whose special action, as a local irritant to the colon, and the neighboring part of the ileum, tends still further to irritate the glands of Peyer in that vicinity.

But one stronghold remains, in which this once vaunted remedy may entrench itself. In the treatment of *Syphilis*, mercury has on its side the tradition of centuries. And yet it is not safe from attack even here; tradition, however venerable, is not always reliable. In certain forms of the disease, it would seem that mercury must have accomplished some good; and yet it is a question, whether the evils of its use have not far, far outweighed its benefits. Not till within a very few years past, has the distinction between the two varieties of venereal sore,—between the most contagious, but non-infecting sore,

and that which is the true initial lesion of syphilis, been recognized ; —the essential difference that exists between the “chancre” and the “chancre.” In the former, the use of mercury is attended with the same evil effects upon the patient’s constitution, and upon the healing of the sore, that would follow the similar treatment of any simple sore ; and with this additional evil, that the physician, overlooking the fact that the absence of constitutional symptoms is due to the nature of the case, and not to his treatment, is still more resolved to put the system of the next similar patient he meets with, under the influence of mercury. Of true syphilis, Dr Bumstead “confidently” states, that “no course of mercury, however thorough and prolonged, administered for a chancre, is likely to prevent the subsequent evolution of general manifestations.” The Dr. believes that the primary chancre will heal more readily under the influence of mercury, but objects to its use, in that it retards, and therefore prolongs, the working off of the constitutional effects. But is it not more reasonable to believe that this retarding is not through any anti-syphilitic power of the drug, but is owing to its physiological action in depressing those vital functions to which alone we can look for the elimination of the poison ?

In this connection observe a very interesting case, introduced by Dr. Bennett, in this year’s edition of his Lectures. The skeleton of a dog, preserved in an Edinburgh museum, is noticeable as presenting the identical disease of the shaft of the long bones, which is recognized as an effect of syphilis ; but to the dog, we are told, syphilis is not communicable. The history of the dog shows that he was poisoned by the gradual introduction of mercury into his system, from the lapping of vermilion oil paint in the shop where he was kept. Does not such an instance as this lead us strongly to suspect that many symptoms, attributed to syphilis, may have been produced by its dangerous remedy ? Are we not strengthened in this suspicion by finding that these syphilitic diseases of bone—as all syphilographers acknowledge—“yield with readiness to *iodine*, with difficulty to mercury” ? And especially, when we remember the power of iodide of potassium, (in which form iodine is universally administered,) to eliminate mercury from the system. With such proofs as these, it is not strange that many accurate observers are inclined to believe, that the use of mercury has added incalculably to the horrors and evils of this most horrible of diseases.

The use of mercurials, then, is only to be thought of in the second-

ary forms of syphilis, and only then, if relief can be found in no other way.

The *local action* of mercury, especially of the mild chloride, upon ulcers, whether syphilitic or simple, is undoubtedly of great service, and is attended with little or no likelihood of absorption, and consequent constitutional symptoms.

One word upon the appropriateness of mercury in *membranous croup*. Whatever influence the drug may possess of repressing fibrinous exudation, by altering the constitution of the blood, is too slowly exerted to be of much avail in such a case; and, it will be seen, must be at the expense of rapidly depressing the system, at a time when all its energies are essential to the continued existence of the half suffocated patient. In diphtheritic croup, no rational physician, surely, would advocate mercury.

In Pneumonia, then, in fibrous and serous inflammations, in Iritis, in Dysentery, in Typhoid Fever, we find that, by no means, is mercury essential, as was once thought, to a successful treatment. To what conclusions, then, are we brought?

When is mercury to be employed?

In general, we may say,—As an *Alterative*, *never, if any other efficient and more safe remedy can be found*. As an *Alterative* for children, it may be employed in diseases of the lower portion of the alimentary canal, with much profit, and with comparative impunity, since, as we have learned, the greater activity of their secreting organs insures them against constitutional infection. If, in such cases, irritability of the stomach coexist, a mercurial preparation may prove the only remedy that can be tolerated. For certain of the constitutional effects of syphilis, we may questionably resort to it. As a *Cathartic*, if not often repeated, it can be recommended, especially when torpor of the colon is presumed, excepting in cases of idiosyncrasy, or where the system has once been saturated with the drug. As a *Local application*, to ulcers, whether syphilitic or not, and also to destroy parasites, it has its value. Such are the uses to which the writer would restrict this once universal remedy. In regard to its use in all other respects, it is his firm conviction that, to quote the language of Dr. Walshe on the treatment of Pericarditis, “*any precise evidence before the profession fails to demonstrate the alleged prowess of the mercurial.*”

Of the correctness of these conclusions each professional man will judge for himself, from the facts already given.

It will hardly be necessary, at this point, to inquire into the suc-

cess of a practice conducted on such principles. The facts and the authorities, already quoted, will answer that question. For himself, the writer may be permitted to say, that, during ten years past, he has very seldom given even two consecutive doses of a mercurial to an adult; and the results of his practice, so far, certainly have not been such as to cause him to change his views. Such views, he is well aware, are not yet accepted by the majority of the profession,—nor are they taught in many of our text books, and yet, as he believes, in private practice they are more generally adopted than many are aware, and are daily gaining ground.

The necessarily brief and imperfect manner, in which so extensive a subject must be presented in an essay of this kind, renders it difficult to do full justice to the subject. Yet, what has been written will not be in vain, if but one honest inquirer after truth is assisted to a clearer insight into a question, so important, and yet confessedly involved in so much obscurity, as that of “the real value of the therapeutic effects attributed to mercury.”

ARTICLE XVI.

CYSTIC TUMORS OF THE OVARY.

BY P. W. ELLSWORTH, M. D., OF HARTFORD.

Read before the Hartford County Medical Society, April, 1866.

It is not my purpose to present a complete treatise on this subject, but simply call attention to a few points of interest in the history, diagnosis, and treatment surgically, of that form usually denominated ovarian dropsy. Neither is it my design to claim originality; for the comparatively limited experience of the writer could add little to the authority of a Clay, Spencer Wells, Brown, or Simpson, who have given such eclat to this branch of surgery. What is now offered is rather a resumé of the practice of these and other distinguished men, analyzed, and in some humble manner sustained, by the writer's personal observation.

There are many points of great interest in the semiology of this disease, and its surgical management, which have been heretofore ably discussed, but which yet remain undecided, and which will therefore bear examination.

These cysts have afforded one of the most brilliant fields for operative interference. Formerly it was the death-doom of the unfortunate one, to be informed that an ovarian tumor had commenced its growth, for recovery was so unusual as to present but little hope in any given case. Spontaneous rupture (a rare termination) taking place in the cavity of the peritoneum, is reported as fatal in at least half the instances of its occurrence, but we may reasonably doubt that the number of recoveries is as great as this. One case only of this description has fallen under the writer's eye, and in that the patient was already in collapse. The post-mortem revealed the correctness of diagnosis. Removal of these tumors, completely and successfully, was proposed and carried out at least once in France, in the latter part of the Eighteenth Century, viz: by Aumonier, of Rouen. It is a matter of dispute whether Prof. N. Smith, of New Hampshire, or M'Dowell, of Kentucky, was the first operator in the United States, but it was an original idea with Smith, and he deserves credit for his

courage and sagacity. Encountering the greatest obstacles, ovariectomy has steadily made friends. So great a surgeon as Liston resolutely set his face, with true Scotch determination, against all operations for removal, refusing to countenance them even by his presence; denominating the operators "belly rippers." This distinguished surgeon had good grounds for his opinion in the then condition of this branch, and chuckled mightily when Lizars had been obliged to leave an operation uncompleted, owing to mistaken diagnosis; a fact I learned from a person who saw the operation, and heard Liston's remark.

On inspecting an extirpated cyst of the kind referred to, we shall be struck with its remarkable resemblance to the intestines, and other hollow viscera of the abdomen; another proof of the law alluded to by Simpson, that morbid outgrowths from the organs resemble, in general characteristics, the organs from which they sprout, as if partaking, in a certain sense, of their nature, just as tumors from bone are generally more or less osseous, and in cellular tissue, cellular and adipose. When seen at a little distance, a collapsed cyst resembles a huge colon, convoluted, sacculated, and sometimes even seeming traversed, as is the colon, by muscular or ligamentous fibres, though it is presumed they do not really exist. As the mass is covered by the glistening peritoneal coat, the general effect is as if it was a portion of the bowels; moreover the sympathies of the parts are enteric, which accounts in some degree for the nausea and prostration universally attending their removal, and which cannot be always charged to chloroform. Permit me here to mention a phenomenon encountered in one of my operations. While detaching extensive adhesions, there appeared a tube the length and size of a finger, on one side of the pedicle, so closely resembling intestine, as to draw the most careful scrutiny of all present. But as one end terminated in a cul-de-sac, and the other ran into the pedicle, and had no connection with the intestines, it could not be a genuine diverticulum, and was therefore embraced by the ligature of the pedicle. This lady did not recover, but a post-mortem examination showed the bowels to be intact. Another interesting point of inquiry is, the cause of these outgrowths. The second cyst which it was my fortune to inspect, and which is now in my possession, suggested that they must owe their origin to an abnormal action of the generative function. It is worthy of note, that the vast majority of these cysts make their appearance after the commencement of menstruation and before its cessation; this peculiar form of tumor exists nowhere except in connection with an ovary.

Baker Brown says "cysts from breaking up of Graffian vesicles is a frequent cause of this form of ovarian disease," and Gross makes the same statement; the growth is usually far more rapid than any known tumor of so great bulk, except pregnancy; (one case presenting itself to me which ran its career to death in a few months;) the sac and contents closely resemble, in certain features, the impregnated ovum in process of development; we have the several coats finely seen in a specimen in my possession, not unlike the chorion and amnion, and containing an amount of fluid seen in no tumor but one of ovarian origin, as is the developing ovum; while sometimes there is, as presented in the above-mentioned preparation, a distinct collection of cells, aggregated in a mass exactly of the size and shape of a placenta, though not of its color, and attached to the inside of an unilocular cyst, while on the outside is found a true umbilical cord, attaching the whole to the ovary, short indeed, and broad, when compared with the true cord, but performing exactly the same function, and resembling it much in color and consistence, having the same translucent, jelly-like appearance, a vinculum found so uniformly, and of such a shape, in no other tumors. These appearances impressed me so strongly, that I have ever since believed that these growths spring from some morbid attempt on the part of the organs at self-generation, but resulting only in a growth which cannot take on independent life, nor can be, by nature, separated from the mother. The frequent discovery of dermoid tumors with teeth, bones, and hair in these sacs, suggests that the generative power is active, but as these are individually completely organized, and are occasionally found in other organs, we can hardly account for their existence, except by the fact that a true development commenced in the normal manner, but somehow was interrupted. As the genuine development, or true pregnancy, has a natural period for delivery, and the ovaries themselves are, more than any organs in the body, under the laws of periodicity, it may be a question whether or not the delivery of these (as it were) mock pregnancies, might not be aided by applying to them the same law; that is, possibly there may be a period in the growth of these cysts, when nature would most powerfully aid the surgeon in his efforts. Exact statistics of the length of time of existence, and time of operation, would be requisite to settle this question.

It is unnecessary to state that these tumors, in external features and in rational symptoms, closely resemble pregnancy, and instances are far from rare when very intelligent physicians have been mistaken in respect to each. No less a personage than a maid of honor to

Queen Victoria, fell a victim to an ovarian tumor, and an erroneous opinion.

Diagnosis. These cysts commence, as a general thing, without marked symptoms, although uneasiness on one side is often felt. Usually, the growth has attained considerable size before it attracts attention, and its discovery is very often an accident. We do not propose to dwell at any length on the differential symptoms presented by these and other enlargements in the female pelvis. So far as treatment is concerned, it is of little consequence what the enlargement is, unless arising from uterine polypi, pregnancy, faecal collections, abscesses, and recto-uterine hematoceles, all of which, except perhaps the last, are readily detected by their peculiar symptoms, and are removed by nature or appropriate treatment. Solid growths cannot be touched, as a general rule, by medication, which, in truth, is likely to do quite as much harm as good.

An absolutely correct diagnosis is however imperative, when the growth begins to interfere with the functions of other organs. Now Surgery steps in and offers the resources of our art.

Earlier, we may suspect and even form a correct opinion, by noting the condition of the menses, not usually stopped by the enlargement of a cyst, by the swelling commencing a little one side of the median line, or detected by the finger in the vagina, by the gradual elongation of this canal, and the rise of the uterus sometimes reaching the umbilicus, and exposing it to puncture in paracentesis, (which has actually occurred,) by the moving of the globular swelling from side to side in the change of position, and by the usually excellent health of the patient. When, however, the abdomen is greatly distended, there is more danger of confounding the disease with ascites, a not at all unfrequent occurrence. In pregnancy there is the same protruberance of abdomen, when lying on the back, as in ovarian dropsy; in both, the umbilicus usually pouts but little, and in both, fluctuation may be indistinct; but in ovarian disease the skin is more shining, and by this time there is, usually, a peculiarly pinched appearance of countenance; pressure on the abdomen will often detect points more boggy or resisting than others; a certain proof of a multilocular cyst or a solid tumor, with ascites. The state of development of the mammae, ballottement, auscultatory sounds, kiestien in the urine, morning sickness, quickening, foetal motions, all convey information by their presence or absence. Ascites gives the most trouble, especially if accompanied by solid growths. I was called to see a case some years since, of abdominal dropsy, apparently. My own impression

was that it was ovarian, founding a hasty opinion upon the general good health of the patient, notwithstanding an enormous enlargement of abdomen. I then proposed a simple test, which is thus introduced in consequence of its paramount importance. Placing the patient's back toward myself and my friends, and laying bare the lumbar region, percussion elicited a dull sound all down one side, but on the other, under the quadratus lumborum muscle, there was a hollow sound, one which, on another occasion, was heard even below the crest of the ilium. This proved the tumor to be ovarian; for a solid or encysted growth would extend toward the anterior parietes, pressing the intestines back toward one or both the lumbar regions, and usually toward the healthy side. As the bowels contain more or less air, they return a tympanitic sound, while a fluid lies against the spine and the intestines float off the full length of their mesentery. It is true, pregnancy will give the same phenomenon, but its own peculiar signs will rarely fail. This test I have tried, time and again, under the most unfavorable circumstances, and it has always held good. In one case, the adeps over the abdomen was $1\frac{3}{4}$ inches thick, as proved upon performing ovarian section; the tumor was a polycyst, very thick, and no fluctuation could be felt, yet the lumbar tympanitic sound was returned clear enough to permit a certain diagnosis.

Another differential symptom is, that palpation does not elicit the perfect fluctuation, particularly over *all* points, as ascites. I have never known a case where it was not possible to detect the difference, even when the cyst was very thin, though this difference is sometimes slight. Again, the umbilicus does not pout to an equal extent in the cystic form, as in ascites, because the fluid in its cyst does not penetrate freely into the umbilicus. Again, when lying on the back, the ovarian tumor projects forward, while ascites flattens out toward the sides. We hurry over these, and skip many symptoms, as they are well known, stating that lumbar percussion is, of all others, the most reliable guide.

We shall now, for want of time, omit all treatment except that of an operative character.

The method formerly practiced by I. Baker Brown, by tapping, mercury and pressure, has, for the most part, fallen into disuse. Probably pressure was never useful, as it engendered adhesions, which rendered the more radical operation afterwards difficult and dangerous. A better plan was that tried occasionally by Simpson, Brown, and Spencer Wells, of injecting the strong tincture of iodine, (Ed. Phar.,) leaving or withdrawing it as the case might be. Unfortu-

nately, the most usual form of ovarian dropsy is the polycystic: and in these, no rational hope can be entertained of cure by this treatment, for the closure of one cyst would be followed by the development of another. A lady now lives near this city who was cured of ovarian dropsy by paracentesis, followed by inflammation and suppuration of the sac, but another cyst now fills the abdomen.

I have tried injection in a single instance, throwing in and leaving ʒiij of the Edinburgh Tincture of Iodine; a little of this escaped, running over and blistering the skin, while that within the cyst was unperceived; not an unpleasant symptom followed. To make sure of injection, it was passed through a flexible catheter, introduced through a large trocar canula. The sac, however, re-filled. The radical operation showed it to be multilocular, though the cysts were smaller than common, but innumerable. There can be no doubt that cures have followed this method of treatment, when the cyst was unilocular, and it is the part of prudence to try this method, although a distinguished operator condemns it as favoring external adhesions. When this is done, the utmost care must be taken to prevent regurgitation into the peritoneal cavity. For this reason the canula should be closely embraced by the fingers, including the abdominal wall and the collapsed sac, and should be maintained in position for a considerable period, as long as there is danger of regurgitation. It seems to me that it must be difficult always to prevent this following the removal of the canula, but as the fluid would be diluted somewhat with the remaining liquid in the cyst, the danger may not be so serious as we should naturally fear. A writer says, that by accident Tinct. Iodine was thrown into the cavity of the peritoneum several times in France, which mistake, though causing great pain at the time, not only did no mischief, but such excellent effects followed, that it was in one case repeated until cure followed; we should, however, not wish to be understood as recommending such a procedure.

The only remaining resource, after the failure of injection, is ovariectomy, though it is to be earnestly hoped some other method of treatment may yet be discovered. Here comes the most trying time to the surgeon, not in the operation itself, but decision as to its propriety, carrying with it results so momentous. I candidly confess that no cases in the whole range of surgery, so far as explored by me, oppress me so greatly as the decision whether a patient should be here subjected or not to the knife. One very serious objection is, that when operated on at a period most favorable for recovery, the patient retains vigor enough to admit the prolongation of life, under appro-

priate treatment, months, and sometimes years. I was consulted, three years ago, by a lady who had a very large ovarian tumor, which had, at that time, existed the rather unusual period of seven years. Paracentesis had been practiced one or more times, but her health was good, and the sac refilled with remarkable slowness. The lady applied to me for an opinion respecting an operation; this was given in opposition to it, and she was dissuaded therefrom. A few months ago she was living, and in her usual good health. This is a rare case, but such must be taken into account in forming an opinion. If we wait until disease has sapped the vital power, and the system is drained by the profuse secretion, and other organs are involved in the trouble, we shall only hasten death by the operation. Brown thinks every year's delay injurious. The advice of Spencer Wells is valuable:—"Do not operate unless the tumor is growing rapidly; and it is permissible only when life is threatened at no distant period." Those who wait, however, until this period, will never show so large a list of successful cases. Statistics show that the recoveries are a little over one half, which is favorable, when compared with other great operations. In strangulated hernia, the report of one London Hospital showed the recovery of one half. Sir A. Cooper showed 36 deaths in 77 operations. My own operations for this have been 27; to this may be added 6 more, of which I have had personal knowledge; of all these, half recovered, and among them, one with intestine mortified, and open. Erichsen, from hospital statistics, says that 66 per cent. perish after amputations of the leg. In hernia, however, it is a question of immediate life or death, and we accept the recovery of one half as a great gain. No doubt this ratio might be greatly increased by prompt action; but we must take cases as they are, not as they ought to be. Graily Hewitt states, from data given, that after ovariectomy, the proportions of recovery to those left without treatment, are as 60 to 16; a good result, especially as those who do recover, regain perfect health. Lyman, in his report of 300 cases, gives the mortality as 42 per cent. Erichsen thinks the proportion of deaths, in experienced hands, is about 30 per cent. This is certainly encouraging, but, unquestionably, many die, of whom the world hears nothing. But we are not to rush blindly upon this operation. We should bear in mind the statements of Robert Lee and Hawkins, that, not unfrequently, cysts exist in the broad ligaments, which, though closely resembling the true ovarian cyst, contain a clearer and more homogeneous fluid, are of slow growth, sometimes existing harmless for many years, and yield more readily to the simpler methods of treatment,

and are, probably, those over which nature has more control. A physician in this city treated a case which, on a post-mortem examination, proved to be a unilocular cyst, arising from no neck, and attached directly to the uterus. The physical signs would all have made it an ovarian tumor.

Our judgment must be founded on a careful examination of all the circumstances of the case, and then we should lay the facts before the patient, leaving her to decide, under the favorable or unfavorable opinion of the medical adviser.

The chief points to be observed are :—1st. The age of the patient. 2d. Her general health. 3d. Character of the tumor. 4th. State of its connections. 5th. Season of the year.

1st. As to age. Statistics show that youth, which adds security in most operations, fails here ; for they do not rally as well as those who have passed the middle period of life ; Lyman's table showing the danger to be greatest from 18 to 25, and the most successful cases, after the cessation of the menses. Surgeons have been struck with the success attending even doubtful cases, when the patients were between the ages of 50 and 60 years. Spencer Wells, however, thinks his cases have done best before 30 and after 40 years of age. Still, very young persons have been operated on. One by Clay was 12, and another 16. I had one patient aged 17, but she was not subjected to the operation, which I have since greatly regretted ; but it was while the operation was in its infancy. Clay opposes the operation after 57 or 58, though on what grounds does not appear, for he says two at these ages recovered best of all his patients ; this, surely, is no proof success would not be equal a few years later. Lithotomy has been safely performed at an advanced age, as witnessed in Chief Justice Marshall.

2d. General health. Of course, this should be as good as possible : any known organic disease, other than the one under discussion, would weaken or destroy all hope of a successful issue. Ill health is not, however, to prove an insuperable bar, provided that condition springs from the ovary alone ; for, unless the health is totally broken, the operation may prove its remedy. Wells and Clay both consider anasarca and ascites as contra-indicating operative interference, unless produced by pressure on the veins ; in which case it will be no more injurious than in pregnancy.

3d. Character of the tumor. The unilocular cyst has been found most tractable, and can be removed by the smallest incision and least disturbance of parts. Size is a matter of minor importance, though

the larger the bulk, the greater danger we may apprehend of collapse. I assisted in the removal of one weighing, with its contents, 80 lbs. The operation was performed against my advice; great adhesions were found, and the termination was fatal. The largest removed by myself weighed, with its contents, about 70 lbs., and another 65 lbs., nearly equal to Clay's largest one, which weighed 73. The second patient recovered without an unfavorable symptom, except a slight nausea on one occasion. There are, however, many reasons why a moderate sized tumor should prove more manageable than a large one. Large semi solid tumors, in the walls of the cyst (and they are very common) cause delay, necessitate freer incisions and more expose the intestines.

4th. State of the connections. This is a subject of solicitude to the operator. A moderate adhesion to surrounding parts does not appear to greatly compromise the case, though very dangerous and troublesome when extensive, especially when involving, as I have seen, one-third the circumference of the tumor. Clay, the most successful operator, attaches less importance to this than most who follow him, and says, he should now operate on many whom he formerly dissuaded. If slight and recent, they can readily be torn, but if well organized, the sac is to be cut away, and left adhering to the intestines or parietes. Wells, the next most remarkable operator, has a greater fear of them than Clay. Erichsen, however, seems to think adhesions so change the character of the peritoneum, that it is productive of benefit, rather than injury, being less liable to inflammation. It is certain, however, that Clay has ever entertained wholesome fear of these attachments, for, up to 1863, he had been consulted in 1,600 cases, and had dared to operate on only 116. But both he, Wells, and Brown, would now operate with greater freedom than formerly. The statistics of recovery given by Clay for his cases, is 67 per cent. Wells gives for his 61 per cent. One danger from these attachments is hemorrhage; for, if cut, the walls sometimes bleed badly; omental arteries are also occasionally wounded, and complicate the case by additional ligatures. To determine, in advance, the presence of adhesions, is not alway a very easy thing. If there has been much inflammatory action, pain, hectic fever and on tapping there is a discharge of bloody liquid or purulent matter, we may most assuredly anticipate more or less adhesion; frequent tapping has therefore been considered unadvisable, if an operation is in contemplation, as it is apt to be followed by inflammation and adhesions. This same thing renders injecting the sac or applying pressure injurious, where an ope-

ration is likely to follow. The best way of learning whether or not adhesions exist, is to place the patient on her back, flexing the thighs, raising by pillows the head and chest, thus relaxing the abdominal muscles. If now the tumor is not so large as to distend the abdomen to its utmost capacity, we may get a pretty correct idea generally, by grasping the walls firmly and gliding them over the tumor, a thing easily done, if there are no attachments, so in that case the tumor will readily fall to one or the other side. A long inspiration will also depress it, if unattached above, and the free movements of the uterus, by the touché, will throw light on the conditions below. When the abdomen is immensely distended little can be learned thus, but on tapping and removing a part of the fluid, I think these manipulations would prove useful. If the canula was left in the wound, and the flow was checked, on turning the patient on one side, deflection of the instrument would show there were no anterior attachments. Still, notwithstanding the utmost circumspection, mistaken opinions will be formed, especially regarding the most dangerous adhesions, viz: those high up, or deep in the pelvis, and behind to the intestines. That some degree of attachment should exist, might reasonably be expected, as the growth is usually accompanied with more or less local inflammation, and the pressure against the serous membranes must be most favorable for this result. Operations, therefore, at an early date, before the tumor pressed hard against the parietes, would give more immunity in respect to adhesions, but at this time the patient is usually too well to justify such interference. These adhesions may be treated by Clay's method, which has appeared to me best, and which I have followed, for there can be no danger in leaving patches of the cyst, as it must speedily undergo change, and secretion from it would be of no importance.

Before the operation of ovariectomy, it appears reasonable that the practice of Clay should be followed, viz: tapping, in order to divide the operation into two stages. This is done three or four days previously, in order to permit the system to rally from the shock of the removal of so great a bulk. Other advantages are that the condition of the sac can be learned, and the character of the fluid will show in some degree the general health. We know the depression produced by the sudden evacuation of the fluid of ascites, and of urine in retention. It is by no means certain that this additional shock, coupled with the incisions, lacerations, hemorrhage, pain, and exposures of the removal, may not make that fatal which otherwise would be sustained. I am inclined to believe that Clay's success depends in part upon this, and he has proved the most fortunate of all operators.

A point here is worthy of attention. Preparatory to such an operation, I requested the attending physician to perform paracentesis. The fluid was very thick and glutinous, and the trocar rather small, also the cyst was multilocular. One cyst was evacuated with difficulty, about two quarts being withdrawn. During the ensuing night there was a further discharge of half a gallon. When ovariectomy was performed, three days after, two pails full of fluid were removed, and a very large part of this lay between the cyst and peritoneum, showing it had slowly flowed into the abdominal cavity out of the cyst, a small portion only having escaped externally. The same thing happened at the first tapping, some weeks previously, and as fluid escaped during the ensuing night in the same way, it is evident the peritoneal cavity was filled then, yet no unpleasant symptom ensued; thus showing that Wells' fear of the contact of the fluid with the peritoneum was unfounded. This is a very interesting fact, and one which I have not before seen reported.

The question of major or minor incisions now presents itself. The original practice was to make an opening commensurate with the magnitude of the contained tumor, sometimes extending from eusiform cartilage to pubis. Even those who open freely, as does Clay, confine themselves now to smaller incisions, and there seems to me no reason at all for making it a particle larger than to readily disengage the tumor. Clay prefers the major operation, as it saves time, better exposes the attachments, allows more free manipulation, and less endangers rupture of the bowels and other injuries, by pulling on unseen pelvic attachments. His authority justly carries great weight. When, however, the fluid is evacuated, and the sac is collapsed, it is evident this can be extracted through a very small orifice, provided no attachments exist and there is no solid tumor in the walls of the cyst. Unfortunately this is not usually the case, and the difficulty must be met by proper manipulation. An incision a little longer than necessary to admit the hand, will be sufficient for all but the worst cases; adhesions (and they are generally most extensive in front,) can readily be separated by moving the hand over the tumor, and this can be done with rather greater facility before tapping and withdrawing the contents of the sac. Wells advises the removal of the fluid by a syphon, after laying bare the sac. I have done so by using a large canula with a leather tube attached to it, withdrawing the trocar by a string passing out of the outer end of the leather conductor. This is just as good, and more simple than Simpson's syphon. The necessity for this practice arises from fears on the part

of good judges, that there is danger of inflammation in permitting a diseased, unnatural and decomposing fluid to lie in contact with so sensitive a membrane as the peritoneum. Clay does not share in this fear, and it is therefore probably of less account than supposed, but the weight of numbers is against Clay. The case quoted above, in my own experience, sustains Clay.

At my first operation on Mrs. M——, of Manchester, the incision was enlarged in order to permit the more easy removal of a mass resembling a placenta, attached to the inner surface of the cyst. An examination of this afterwards convinced me that this body could have been broken up and extracted through the wound as originally made. Before I had an opportunity of acting upon this idea, European surgeons made and acted upon the same suggestion. Since that period I have found no difficulty in breaking up the lobules of a polycyst by the grasp of the hand, or by first drawing through them a scalpel, when their coverings are too tough. The whole can then be readily extracted, unless bound by adhesions, which must, if existing, be carefully torn off rather than cut, for fear of bleeding. When the tumor is thus removed, the cicatrix will not be of a greater extent than three or four inches, owing to the contraction of the abdominal walls.

Pedicle. The division and management of the pedicle has engaged the most careful and earnest study of surgeons, and a safe method of treatment is just now considered a great desideratum in surgery. The three methods most in vogue are—1st, that of Tyler Smith, first tried by Rodgers, of New York, and advocated by Spencer Wells, viz: to ligate *en masse* the pedicle, and return the stump and ligature into the abdomen, leaving to nature the management of removing the ligature, the putrid end of the stump, and the effused pus, always very considerable, judging from what occurs when the pedicle is attached to the wound.

2d, Simpson's method, cutting the pedicle of sufficient length to fasten in the wound, transfixed by one of the long pins used in closing the incision, whereby the effusion of pus into the abdomen is prevented. This method I have several times adopted, and found very advantageous. The chief difficulty in this last method arises from the fact that, if tympanitis occurs, there is great strain put upon the pedicle, and it is necessary sometimes to disengage it and let it return into the pelvis. Moreover the presence of this foreign body in the wound is objectionable, preventing adhesion by the first intention.

3d, The method of Clay, who ties the pedicle *en masse*, leaves the

end of the ligature hanging out of the wound, by which its removal is easily effected within a few days.

The danger in the 1st and 3d methods lies in pyemia, inflammation and hemorrhage. These are avoided by the 2d, or Simpson's plan, but it is impracticable with a very short pedicle, especially if the patient is fleshy. This difficulty may be overcome, however, by leaving a portion of the sac attached to the pedicle, whereby it obtains sufficient length. This bit of sac can do no mischief; it is not like a root in malignant disease, but is immediately transformed, as I know by observation, into a harmless ligament. Hutchinson recommends that the pedicle be embraced and secured in a clamp, which is to be removed in a day or two. The practice has many advocates, but I see in it no superiority over Simpson's method.

Dr. H. R. Storer, in a late treatise on this and kindred subjects, is a warm advocate for the ecraseur. I should fear to trust this, lest hemorrhage should occur; it would also prevent speedy healing of the pedicle, after such a crushing and mangling.

It has appeared singular to me that surgeons should have departed from the usual rule and practice in other operations, viz: securing the bleeding vessels each by itself when divided. There seems to me no sufficient reason for this change of practice, any more than there was for tying the spermatic cord, instead of the bleeding vessels themselves, a far less painful and certainly as safe a procedure. The fear of hemorrhage does not justify the change. It is true internal hemorrhage has occurred and ligatures have slipped, while statistics show a mortality from this cause of 16 per cent. So large a percentage would show a defect in the present practice of ligation *en masse*. The fluid with which the end of the stump is bathed is remarkably glairy, as any one will admit who has ever handled one of these tumors, and a ligature would slip as readily as if dipped in oil, but it will slip on a pedicle as certainly as on a vessel. To avoid this danger, usually the ligament is transfixed and tied in two parts, but death from hemorrhage may occur from a cause this does not certainly remedy. Dr. Parkman's case, in the Massachusetts General Hospital, died from bleeding, caused by shrinking of the strangulated pedicle, though said to have been firmly tied. Clay also speaks of similar cases.

I doubt whether the vessels in the pedicle are generally of sufficient magnitude to justify such timidity, for the sac itself is of a pearly color, like the tunica albuginea of the eye, and does not appear to contain much arterial blood, while the veins on the sac appear more for-

midable than they really are, in consequence of their flattened form, caused by pressure. Occasionally the arteries are large, and if so, more easily found. In all my search, I have discovered but a single instance where the arteries were alone tied, and that was the first in this country, that of Prof. Smith, who in removing a cyst, weighing with its contents, 8 lbs., 4 oz., "tied two small vessels," and returned the pedicle. A tumor weighing over 8 lbs. would have pretty large vessels, if those of 30 and 40 lbs. have them of such dimensions as to demand ligation *en masse*. A Mr. Wilson is spoken of in the *Medico Chirurg. Review*, as advocating tying the individual vessels, but nothing is said of his putting the idea into practice. Spencer Wells says that on a favorable opportunity he shall tie the vessels separately by wire, and leave the ligature in the abdomen. Yet he does not appear to have adopted the practice.

Simpson has of late resorted to compression, by passing a strong pin with a large head through the pedicle, at a little distance from its edge, if a broad ligament, then back again near the other edge, and then ties over the head and point by a figure 8. Thus the vessels are compressed between the pin and ligature. He then protects the point of the pin by a hood, and so arranges three wires that by drawing on each in succession the hood is withdrawn, then the pin, then the ligature. In this case the pedicle is returned to the abdomen at once. His object in not enclosing the whole pedicle in the pin, was to permit enough blood to pass to the outer end of the stump, to keep up its vitality. Brown has used the actual cautery on a few occasions, a practice constantly and safely used in veterinary surgery and in spaying. He has used it not only with success on the stump of the pedicle, but also on the abdominal walls. I should not consider this practice as safe as the ligature, but it certainly possesses some advantages.

Having had but a limited number of cases of my own, and being unwilling to depart from authority in a matter of so great importance and at the same time so novel, it became me to take the position of learner, not teacher; therefore, throwing aside all prejudices or theoretical objections, I followed the practice usually adopted, by ligation *en masse*, and either leaving the ligature hanging from the wound, after the manner of Clay, or attached to the wound, after the method of Simpson. A plan has suggested itself to me, which appears free from most of the objections, but I have had no opportunity of putting it to test. It consists in finding the arteries by the finger, before cutting, or after cutting; the pedicle, in the latter case, being tempora-

rily secured by the clamp. An armed needle may be now thrust through the pedicle, close as possible to the vessel, and back close as possible on its other side; this is then firmly tied, or twisted, if a wire. Every large vessel may be thus treated, and the veins also, if disposed to bleed.

The advantages of this course will be many. First, the pedicle will not slough at all. Second, the ligature being very small, and of wire, if preferred, may be returned into the abdomen or kept at the wound; in either case making far less trouble than the strong cord now required. Moreover, if wire is left, it will imbed in the pedicle, not in the intestines or walls. 3d, Slipping is impossible, because thrust through the pedicle. 4th, Shrinking, as in Parkman's case, is not likely to occur, as but a very small part of the pedicle would be embraced in each ligature. 5th, No large suppurating surface will be left, on detachment of the ligatures. 6th, The distress caused by the stricture *en masse*, will be entirely avoided. It is not improbable that much of the nausea, and sickness, and prostration usually following, may be owing to the common method of strangulation, as we know the intimate sympathies of the abdominal viscera. Thus ligature of so comparatively useless a body as the omentum, will closely imitate in its symptoms, strangulation of the bowel itself. 7th, The wound can thus be brought together and safely healed, by the first intention.

Here let me say that, although I have not hitherto practiced it, I am satisfied on reflection, that the method of Tyler Smith, of returning the pedicle with the ligature into the abdomen, is preferable to any other as yet used, and will be in harmony with the method proposed by myself. The reason is that patients are most likely to die on the third day or before, of exhaustion. If they rally against this, the chances are pretty good. It is important, therefore, to place the wound in the best condition for *present* comfort and security, until this dangerous period is passed, without undue solicitude about accidents occurring later in the treatment. If the pedicle lies quiet in the pelvis, secured by a ligature of animal substance, the uterine appendages not put on a stretch, nor the wound partially open by the pedicle in it, according to the method of Simpson, the patient will be in the best possible state for recovery; should, however, effusion of pus occur, (as it will to some degree,) or the ligature make trouble, (although it never seems to have done so,) the system is in a better state to resist, after the lapse of a few days, and probably will do so successfully. In the method proposed by me the ligatures will be exceedingly small, and not likely to lead to any disturbance.

METHOD OF CLOSING THE WOUND.

The two modes, adopted most generally, are by ordinary suture, wire, and pins, after the manner of hare-lip sutures. The latter method seems to me preferable. I have seen a wound for ovarian section almost perfectly united by this suture in forty-eight hours, except at the point where the pedicle was attached, (even where the termination was fatal.) The advice of Wells should, however, always be followed, viz: introduce the pins at some distance from the edge of the incision, pass them deep and close to the upper surface of the peritoneum, without penetrating it. These are to be placed about $1\frac{1}{2}$ inches apart, and secured by the figure eight ligature. Superficial stitches are to be taken between these deep ones, and adhesive straps applied, where necessary. These pins should have considerable length, say from $2\frac{1}{2}$ to 4 inches. In the very fleshy case mentioned above, the largest were necessary. I would suggest that in such a case it would be better to have the pins somewhat curved, like the common surgeon's needle, (though not as strongly,) as these would cause less strain on the abdomen, would bring the edges of the wound more naturally together, and render pads under the ends of the pins unnecessary, and which otherwise might be buried in the skin. Simpson objects to wire sutures, because in withdrawal the peritoneum is scratched and irritated.

TIME OF OPERATION.

My own opinion is in favor of hot weather. The advice to keep the room at a high temperature is unquestionably sound, but that does not meet all the difficulties in the case. The writers on this subject are mainly English, and their climate is very unlike ours, having neither its heat or cold. In winter the vital powers are low; all diseases are then most malignant, except those of malarial origin. Scarletina, Erysipelas, Rubeola, Variola, Typhus and Typhoid Pneumonia then hold their revel. Brown cautions us to regard atmospheric changes, and to avoid all things which may depress. The statistics of every English hospital would give little certainty as to the best season for operating here, owing to the great difference in climate. So far as my own personal observation extends, summer has appeared the most favorable time, and if so, ought if possible to be selected, for little things often decide the issues of life and death. Heat is no objection to the healing of a wound, even if extreme. Baron Larrey remarked the great facility with which wounds recovered in Buonaparte's Egyptian campaign. Even if a room be kept at

a high temperature during the brief operation, there is a depressing general influence always at work, which must be detrimental to the patient. It is not necessary to expose the intestines extensively, and in one instance I did not see them at all ; nevertheless air must enter the abdomen, and if cold, will assist in the general depression of the shock. I endeavored to obtain some statistics from an operator in this department, of considerable experience, but have as yet obtained no reply to the letter. We shall undoubtedly ere long have reliable data on which to form an opinion.

I have now endeavored to contribute a mite, and it is indeed but such, toward the elucidation of this most interesting subject, one which cannot too earnestly engage the attention of the lovers of our art. There is little doubt that not many years will elapse before such improvements and discoveries will be made, as will render this operation less hazardous than it unfortunately is at present.

ARTICLE XVII.

NEBULIZATION OF MEDICINAL SUBSTANCES, FOR BRONCHIAL, ORAL, AND POSTERIOR NASAL INHALATION, AND FOR THE PRODUCTION OF LOCAL ANÆSTHESIA.

Read before the Convention, May 25, 1886.

BY EPHRAIM CUTTER, M. D., 13 PEMBERTON SQUARE, BOSTON, MASS.

It has long been a serious obstacle to the successful administration of medicinal substances by the ordinary methods of inhalation, that the article to be inhaled was not really introduced into the air passages, and brought into contact with the vascular mucous membrane of the lungs, excepting when the substance used was volatile, as ether, chloroform, &c. Articles dissolved in an agent like those named, were not apt to ascend in the vapor of the menstruum, and thus their inhalation was impossible, or uncertain, to say the least. For instance, if it was attempted to administer the Tinct. of Hyoscyamus, the patient would get more of the Alcohol than of the Hyoscyamus. In the employment of the Tr. of Iodine the case is different. The Iodine seems really to rise in the vapor, and to pass with excellent therapeutic effect on to the pulmonary mucous membrane. The ordinary methods of inhalation are not to be decried for the use of certain substances, but it must be admitted that the new invention received from Germany is admirably designed to supply the deficiencies of the known methods. Reference is here made to the means employed for the diffusion, in fine spray, of medicinal agents which are volatile or non-volatile, or capable of being dissolved in water, alcohol, ether, chloroform, glycerin, or fixed oils.

Various terms have been used to describe the method. The first known to the writer was that of "Nebulization," from "Nebula," a fog, cloud, or mist. Pulverization, vaporization, and atomization, have also been suggested. The latter is obviously improper, as the word atom refers to the ultimate elementary form of bodies—the finest possible state of subdivision. In plain English, the process is that of suspending in the air any substance capable of solution in

some liquid, in spherical particles so minute that they readily float in the atmosphere, and are capable of being borne as such by inhalation into the ramifications of the air passages, there to impinge on the mucous membrane, and to exert a topical therapeutical effect. Nebulization differs from vaporization, in being a mechanical division, not a chemical diffusion. Several ways are devised for doing this. One is by allowing a small jet of the medicinal agent in solution to forcibly impinge, at an oblique angle, upon a smooth metallic or vitreous plane surface. This jet is reflected off. in the form of a fine spray, containing the agent, in minute globules, capable of being inhaled.

Another method is, by a current of air or steam, thrown through a horizontal tube, which at the distal end meets another vertical tube, the lower extremity of which rests in the medicinal liquid. The liquid rises in the tube, and is blown up in the jet of air or steam, in a state of minute subdivision. This invention has been utilized by the perfumers and by the naval marine. The former place it in the hands of the ladies, for the purpose of diffusing their aromas upon their handkerchiefs and wearing apparel. It does this admirably, and report has it that the common request of the fair sex, in fashionable circles, before going out on a walk, is, "blow on me." On the iron clad, I am informed, a patent steam pump, without a valve, is used, which is made on this principle. In this case the tubes are about $3\frac{1}{2}$ inches in diameter. A late useful application of this form of instrument has been introduced to experiment by the Russian Admiralty, namely, the ignition by the atomized vapor of the spirits of turpentine, resulting in the production of a flame which will melt copper or brass. It is utilized for heating the boilers of steam engines; and a small steamship has been successfully propelled by a comparatively small amount of turpentine.

Still another method is to partly fill a soft india rubber bag, having an appropriately arranged orifice, with air and the medicinal agent, and then, by compressing the bag, to expel both in the form of the desired spray.

Other methods are devised, which will not be spoken of here. It is intended to allude to the second method only, the means and method of making the apparatus, with some account of the principles governing the construction.

NEBULIZATION BY A CURRENT OF AIR OR STEAM passing through a tube, the distal extremity of which impinges at a right angle upon another tube. The simplest form of this apparatus is seen in the perfumers' toy. This instrument consists of two glass tubes of about

$\frac{1}{4}$ inch in diameter, about 4 or 5 inches in length, and a small brass attacher or holder, with two perforated arms. The tubes are open at both ends, are of the same caliber throughout, and the ends are square. They are inserted through the perforations in the arms, in such a manner that the longitudinal axis of one tube is at right angles with, and exactly at a level with, the square end of the other tube. In use, the tube whose extremity is on a level with the longitudinal axis of the other tube, is plunged into Cologne, and a current of air is blown from the breath through the other tube. The Cologne rises, and is diffused, in the direction of the arm, upon the desired object. This same perfumers' toy may be used for the administration of water to a patient's dry and parched mouth, or for the therapeutical application of medicinal agents to the soft palate, uvula, tonsils, and post-pharyngeal wall.

But this division is coarse and spattery, depending entirely upon the large size of the orifice of the two tubes, which are of the same size, to wit, $\frac{1}{4}$ inch in diameter.

For medicinal purposes, the perfumers' toy is modified. To procure a fine spray, the meeting ends of the tubes are brought down to minute points. The two tubes may be designated as the air tube and the liquid tube; the former intended for the current of air or steam, and the latter for the medicine. The air tube may vary in the simplest form of instrument from 3 to 6 inches in length, and the liquid tube from $1\frac{1}{2}$ to 4 inches in length. The current of air may be derived from the breath, the condensing air pump, or an india rubber air bag compressed. It is also derived from a jet of steam. The materials of the apparatus vary. The tubes may be made of hard rubber, glass, or metals, as silver, platinum, common tinned iron, copper, &c. They may be connected by a joint of hard rubber, so that when in disuse they may be packed into smaller compass, by glass, by wood and sealing wax, by iron wire, by tinned iron, by gutta percha, &c.

It is easy to make this form of instrument with the following materials:—A glass tube, $\frac{1}{4}$ inch in diameter and 1 foot in length, a small bit of wood, preferably Spanish cedar, with plane surfaces, $\frac{3}{4}$ inch square and $\frac{1}{4}$ inch thick, sealing wax, a fish-tail gas light, and a file of moderate fineness. The sealing wax is melted, and put on two adjacent narrow surfaces of the bit of wood, so as to cover them well. The glass tube is then melted over the gas flame, at a point about 4 inches from one end. It is then drawn out, as shortly as possible, to a fine tube, say $\frac{1}{16}$ inch in diameter. It is allowed to cool, then bro-

ken off at the narrowest part. If the ends are not square, they are made so by the file. The tubes are then warmed in the flame, and melted into the sealing wax on the bit of wood. They are so adjusted as to have the small end of the liquid tube, which should be the shorter, just against the center of the small extremity of the air tube. They are held until the wax has cooled, and then tested. If the adjustment is correct, they will be found to work more admirably and easily than the purchased ones. If the adjustment is incorrect, gently warm the wax, until the fixed grip is somewhat though not entirely relaxed, and then adjust the tubes, without removing, until placed right. It is well to have the end of the air tube considerably larger than that of the liquid tube. It is much easier of adjustment, and does not affect the fineness of the nebulization, which depends upon the size of the orifice of the air tube.

The writer has also had these tubes made of common tinned iron, by a worker in that metal. Two tubes are made conical, both 5 inches in length, one $\frac{5}{16}$ inch and the other $\frac{9}{16}$ inch in diameter, at the larger end. The diameter of the smaller tube, at its meeting extremity, is about 1 line, that of the larger tube $1\frac{1}{2}$ line. It is not necessary to be refinedly accurate for practical purposes.

They are made and look much like the tip of a carpenter's oil filler. They are then connected together, by soldering, to the edges of a piece of tinned iron, forming a $\frac{1}{4}$ segment of a circle, of $\frac{3}{4}$ inch radius, in such a manner that these small ends impinge upon each other, according to the principles already laid down. They are useful, because cheap, and not liable to be broken by handling. They can be employed for all substances which will not act chemically upon the metal.

The principles of these instruments seem to be these:—

- (1) A current of air or steam blowing on
- (2) An orifice of another tube, the other end of which is immersed in a liquid.
- (3) A vacuum is produced, whereby the liquid rises in the tube, and is dispersed in the form of globules, making a thin minute spray, in the direction of the distal opening of the air tube, which in this instance is horizontal, so that the spray impinges directly upon the objects placed directly in front.
- (4) The meeting orifice of the air tube is to be placed in such a manner that its center comes directly against the level surface of the liquid tube.
- (5) The size of the meeting orifices may be equal in diameter, or,

preferably, that of the air tube may be larger than that of the liquid tube. It is generally necessary that the orifice of the liquid tube should be even and square. The size of this orifice determines the character of the spray. If large, the spray is large. If small, the spray is fine. The orifice of the air tube may be irregular in size, or rough or jagged, without impairing the efficiency of the instrument. This is well to remember at its making. When the breath is to be depended upon, it is well to have the orifice of the air tube quite large. It blows much easier, and is hence much less troublesome to the patient.

(6) The caliber of the tube does not much affect the rise of the liquid. It depends solely upon the size of the orifice. A tube of large caliber, with a suitable orifice, will convey fluid evidently as well as a tube with a caliber throughout equal in size to that of the orifice.

(7) The length of the liquid tube affects the flow. It is easier when short.

In the instruments described, the spray is horizontally directed. The patient opens the mouth wide against the spray, and breathes in the vapor.

This apparatus requires the use of a face shield, to protect the parts. This shield is usually made of glass, in the form of a spectrum, one inch in diameter at one end, and expanded into a funnel of several inches in diameter at the other end. Dr. Oliver's modification consists in having the jet thrown into a very ingeniously made bottle, contrived with openings for the inhalation of the vapor diffused within. In Lewin's work there is figured a modification which does away with the face shield. It consists in prolonging the air tube to a greater length, and in the liquid tube's running underneath, in such a manner that the instrument can be introduced inside the mouth, to the back part of the throat. This is a very excellent modification, invented by Dr. Reid, of Boston. It is useful in the cases mentioned above.

To make the apparatus more useful, the author contrived another modification, which he certainly is sure was suggested from his own thoughts, but which he is informed has been invented elsewhere. This modification consists in bending at a right angle the distal end of the elongated air tube, so that the direction of the spray proceeds at right angles to the longitudinal axis of the instrument. By this arrangement, the instrument can be projected beyond the tongue or projected beyond the soft palate, so that the spray may be thrown directly upon the epiglottis, into the larynx and trachea, and upwards into the wedge-shaped space, back of the posterior nares.

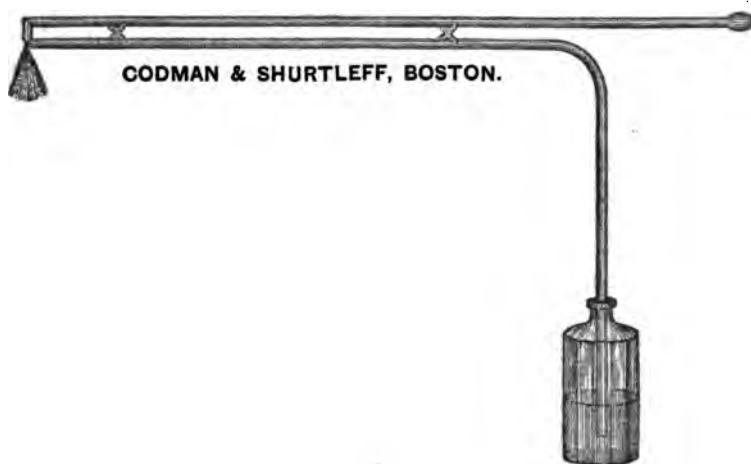
The advantages of this instrument, as modified, are as follows :—

(1) It does away with the face shield, and does not stain the lineaments.

(2) It directs the medicinal agent into the very entrance and doorway of the pulmonary organs.

(3) It addresses the remedy directly to the post-nasal space, an advantage which is claimed for no other instrument.

(4) It leaves nothing to be desired for the purpose of administering medicines by inhalation, with the single exception of addressing the uvula, soft palate, post pharyngeal wall, and tonsils, in which case the direct current is to be used.



Silver and platinum nebulizer for universal use—freezing, burning, and the administration of medicinal substances by inhalation.

The material of this form of instrument is best and most durably made of silver for the air tube, of platinum for the liquid tube. These materials make an elegant and finished article, capable of lasting for a life-time.

Messrs Codman and Shurtleff, 13 Tremont Row, Boston, have made the instrument for me, and have the same for sale, of most thorough and creditable workmanship. This firm also furnish, at my suggestion, the same instrument made of glass, connected by wood, fastened by cement. They also furnish every appliance in this line.

The same instrument may be home-made, of glass, with a gas light, sealing wax, and a file, as follows :—Take a common white glass tube, of about $\frac{1}{4}$ inch in diameter, and 2 to 3 feet in length. At about 10

inches from one end, melt the tube over the light, and bend it sharply and shortly at a right angle, and bring it to a point as soon as possible. Then, with the file, at this point make a square opening, of about $\frac{1}{8}$ inch in diameter. The remaining portion of the glass tube is to be examined, and if the point is not suitably small and square, it is to be made so, over the lamp and with file. After this, the tube is to be bent on itself, to a right angle, at the distance of 4 or 5 inches from the small end. It is then to be cut off at a point $2\frac{1}{2}$ inches from the bend, towards the large end. This is the liquid tube. The two tubes, thus prepared, are to be put together, and the extremities properly adjusted. Warm both together over the lamp, and then melt on the sealing wax to them, for about 1 inch in length, towards one end. *Not melt the wax first, and then apply to the glass tubes.* This is contrary to the true principles of soldering. Hold the tubes until cool, and test. If properly adjusted, it may act on the first trial. If not, soften the wax by heat, and readjust until the desired position is found. The glass should then be heated along the uncovered portions, the wax melted on, and allowed to cool, one portion after another. It is not well to heat the whole length at once, as the adjustment will then become deranged.

The instrument thus made is compact, as the two tubes should touch each other, from their point to the bend of the liquid tube, and if made as directed, are very solidly and smoothly soldered together. It is not inelegant, and is only liable to mechanical injury. It is cheap. The same instrument could be readily made of tinned iron, and soldered together firmly. For the nasal apparatus, if the liquid tube is large, it is only necessary to fill it by blowing in the menstruum in the ordinary position, namely, with the bend of the liquid tube downwards. Then removing it, to turn the tube upwards, and placing the tip of the instrument behind the soft palate, to continue the blowing until the charge in the tube is exhausted, and this is usually a sufficient quantity for exhibition. Should it be desired to have a more protracted exhibition, the proximal large end of the liquid tube may be bent on itself, in the shape of a letter U. The free end can be immersed in the liquid, and the administration can be protracted as long as desired.

The *Materia Medica* of this department embraces aqueous solutions, chloroformal, ethereal, and alcoholic tinctures and glyceroles. The strength of these agents varies according to circumstances of the patient and the nature of the drug. The following list embraces some of the ordinary articles, with their approximative strength.

1. *Tannin*. Solution grs. jss—grs. v. to fl. ʒj water. Used in sore throat, indicated by injection of the mucus membrane, with soreness, mucus bronchitis, slight aphonia, clergyman's sore throat, catarrh of nares.

2. *Iodine*. Tincture of U. S. P., one half to full strength,—Asthma, Bronchitis, tuberculization of the lungs and scrofulous diathesis, catarrh of nares.

3. *Iodide of Potassium*, grs. j.—x to fl. ʒj water. Indications the same as above.

4. *Chlorate of Potash*, gr. j.—sat. sol. to ʒj water, sore throat.

5. *Alum*, gr. j.—sat. sol. to ʒj water as an astringent.

6. *Sulphate of Zinc*. Strength, supra. As an astringent.

7. *Liquor Ferri Pernitrat*, gr. ʒ—water ʒj—to full strength, as a hæmostatic in hæmoptysis.

8. *Sulphate of Iron*, grs. j.—x—water fl. ʒj.

9. *Anodyne*, tinctures of Opium, Conium, Hyoscyamus and solutions of the salts of the active principles, such as gr. j to the fl. ʒj water to procure sleep, when the same medicine is rejected by the stomach.

10. *Carbolic Acid*.

11. *Wine*.

12. *Nitrate of Silver*, gr. ʒ—grs. xl. to fl. ʒj water, in ulcerated throat.

13. *Sulphate of Copper*, gr. j. to fl. ʒj water.

The administration may be made from once in an hour to once in eight hours or once a day, according to circumstances. The length of the time of administration should continue from ten seconds to one minute, *pro re nata*.

The method is still in its infancy, and this therapeutic field is open for harvests which promise richly.

The apparatus just described has had a new and exceedingly valuable field opened for its use, by the eminent Dr. B. W. Richardson, of London, to the production of local anesthesia, by the impinging of the atomized spray of common sulphuric ether, upon whatever part of the body it is desired to operate. It acts by refrigeration. So large an amount of latent heat is absorbed in the passage of the nebulized ether to the condition of a gas or vapor, that the parts in contact are frozen. The thermometer is reduced to about 4° below 0, Fahrenheit. Dr. H. J. Bigelow employs a hydro carbon volatile at 80° F., and calls it Rhigoline. Dr. Richardson was in the habit of cooling the ether by ice, before use. But this is unnecessary. The process has

the following characteristics :—Simplicity, cheapness, celerity, and success. It is simple. It requires only the plainest form of the nebulizing apparatus, and a small bottle of common ether. It is cheap; because only about a drachm or two of the ether is necessary. It is quick. The time required is only 5 seconds minimum to 45 seconds maximum. It is successful, as the following cases of surgery show for themselves. It is simply applied; it being only necessary to blow the vapor upon the part desired to be operated upon. The impinging continues for from 5 minutes to 45 minutes. If continued longer, as the benumbing acts by refrigeration, the part would become exsanguine and frozen; and exfoliation and desquamation would ensue. It is not necessary to carry the process to this extent for the production of the necessary anesthesia. This lasts for about one minute. Should the operation be longer protracted, it will be necessary to repeat the application of the ether.

The operations to which this method is applicable are as follows :—The opening of abscesses, such as felons, deep-seated collections of matter under the fascia of the thigh, &c; the extirpation of *nævi materni*; the extraction of teeth; the puncturing of synovial ganglions of the wrist; the extirpation of excrescences, small wens, tumors, warts; the paring of vesico-vaginal fistulæ; the paring and removal of corns and bunions; the removal of toe and finger nails, slivers, needles. Capital operations have been performed, such as the Cæsaræan section, successfully and painlessly. It may also be applied for the refrigeration of wounds of joints, &c. The following cases are appended for illustration :—

CASE I.—Physiological. This is typical of quite a number, similarly tried, which were all alike in result.

My own hand was pricked with a pin, and gave me the ordinary painful sensations. Upon applying the ether, in a state of nebulization, for about 15 seconds or less, the point of the instrument being held within one inch of the skin, a space of about one inch in diameter, when pricked with the same pin gave no pain whatever, and the only cognizance of the operation was, the sensation of a foreign body touching the skin, as if pressing on it.

CASE II.—My timid wife had a painful stump of the second right upper tooth, which I had in vain sought her permission to extract, for fear of the pain. The atomized ether was applied to the anterior gum and the stump of the tooth, for the space of half a minute, and then the stump was successfully extracted at once. My wife insists that she felt no pain whatever. There was a sensation of pulling.

Remarks. This case is analagous to those published by Dr. Richardson. The writer recommends his silver and platina instrument for this dental anæsthesia. Its elongated form and point at right angles, admirably adapts it to this purpose. It can be applied readily to the deeper teeth and the gums, outside and inside. It is less cumbersome than the vitreous instrument.

CASE III.—A timid lymphatic boy, 12 years of age, son of a farmer, had a diffused fluctuating swelling on the outer aspect of the left thigh, extending from just below the great trochanter to the lower half of the thigh. It was livid in look, and "punky" in feel, except at the upper part. It had been three months in coming on. It was not very painful. With a home-made nebulizer of glass tubes, wood, and sealing wax, it was anæsthetized. In half a minute the skin was punctured deeply, with an abscess lancet, without pain. Subsequently, on probing more deeply, to prove whether the bone was diseased, he complained bitterly, but he said that the primary puncture he did not feel at all. The discharge was very thin and bloody.

CASE IV.—A man with a small abscess on the left point of the chin. This was nebulized with ether for 30 seconds, and punctured without pain, securing a free discharge of pus.

CASE V.—A Lady of 45 years, with a ganglion on the left wrist as large as an ordinary marble. This was nebulized with common ether for 30 seconds, and then pierced with a large number of subcutaneous punctures, with a spear-shaped needle, *absolutely without pain*.

CASE VI.—A married lady, 45 years of age, with hip disease of two years standing, indicated by pain in left knee, hip joint and thigh, shortening of the left limb one inch, had a swelling over the left hip joint, which extended downwards for about 4 inches. It was soft, distinct, fluctuating, and attended with severe pain. It may be well to add, that this swelling was consequent to the manipulations of a "spatting" doctor, who roughly bent out straight the thigh, when apparently ankylosed at a right angle to the body!! The ether was nebulized on the lower part of the swelling, which was then cut open with a straight bistory, *absolutely without pain*. As the anesthesia was passing off, the opening was enlarged with a slight sensation of pain.

CASE VII.—A man had the left instep trodden upon by a calf. In a few days, on the exterior tendon of the great toe, midway between the ankle and toe, there appeared a cartilaginous tumor, of the size of a marble. It was diagnosticated as a ganglion of the theca. Nebulized with common ether for about 30 seconds, it was so benumbed

that it was subcutaneously and *painlessly* punctured in several places with a spear-shaped needle.

CASE VIII.—A young lady, 17 years of age, had a wen on the ulnar middle surface of the left forearm, which appeared to be a globe $\frac{1}{4}$ inch in diameter. Its outer surface was red, and when pressed upon or accidentally hit, it exuded a bloody serum. It was painless. Extirpation by the knife was proposed, with local anesthesia. Being consented to after some hesitation, the part was subjected to the stream of ether for 60 seconds, the spray impinging upon and covering a circular surface over one inch in diameter. It was separated, by the knife, in a few minutes, the patient said, absolutely without pain. During the operation, the nebulization was repeated twice. The general effect of the operation was shown by a paleness and slight faintness. The microscopical characters of the growth were caudate, oval, elongated, nucleated and sub-nucleolated cells, with connective fibres.

CASE IX.—Felon case. An Irishman, middle-aged, laborer, had a swelling involving the extremity of the middle finger of the left hand. It had existed one week, and had kept him awake all of one night with the pain. It was dense and hard, very painful to the touch. It was nebulized with ether till it became white, and then opened freely with a knife. Anæsthesia was not complete; the patient said he was hurt considerably. But his manifestation of pain did not begin to compare with the symptoms shown by others when their felons were opened, and who expressed a similar amount of suffering during the exploratory palpation.

CASE X.—My infant, 9 months old, had an abscess seated on the right shoulder, near the edge of the arm-pit, which had been several days in coming on. This was opened under the influence of the local anæsthesia, but the child cried, whether from the smell and cold of the ether spray or from the pain of the incision, it is difficult to decide.

CASE XI.—A boy 15 years old, while fishing, caught a hook in the left thumb, next the middle of the nail on the outer side. It was sunk below the barb. The part was nebulized with ether for about 45 seconds. It was attempted to be withdrawn without success. This proceeding did not cause much pain. The hook was then driven forward, until the point and barb appeared out on the other side, and were broken off. The hook was then withdrawn without pain or difficulty. The operation was very painful, as the under surface of the thumb was not anæsthetized. The process in this case was not very satisfactory.

CASE XII.—Attempted extraction of the third upper right molar

tooth. The ether was applied for about one minute, on the outside and inside of the tooth. The first grasp of the instrument was not felt, but the tooth was crushed in the attempt at extraction, and the subsequent unsuccessful efforts to extract the remainder, were evidently as painful as they would have been without the application of the anæsthetic. Two days afterwards the patient appeared and said that the pain was bad as ever. It was nebulized, and attempts were made to withdraw, with only the results of breaking off the tooth still more, and the pain worse than ever. I then called in an eminent and expert dentist, Dr. Clough, who, after I had thoroughly nebulized with ether the stump, skillfully, though unexpectedly, removed the remains, which proved to be the fangs incurved and doweled in, by a portion of the alveolar process running in between. On the extremity of one fang there was a sac filled with pus as large as a common sized pea. The last extraction, the patient said, was not felt as painful,—establishing well the perfection of the local anæsthesia.

CASE XIII.—A machinist, working heated iron on an anvil, cleft off a sliver from the anvil, which rebounded and penetrated the ulnar aspect of the left fore-arm, midway between the wrist and elbow. It was hot, and caused a deep and freely bleeding wound, which was very painful. With the tin nebulizer I inserted three deep sutures, absolutely without pain. In six days the wound was well healed, and the sutures removed.

ARTICLE XVIII.

ALCOHOL AS A DRESSING FOR WOUNDS,

WITH SPECIAL REFERENCE TO ITS EMPLOYMENT BY M. NÉLATON,
AT THE CLINICAL HOSPITAL, PARIS, FRANCE.

Read before the New Haven County Meeting, April, 1866.

BY W. LOCKWOOD BRADLEY, M. D., OF NEW HAVEN.

While State Legislatures have been endeavoring by Laws of Prohibition and License to restrict the use of Alcohol as a beverage, its employment as a medicinal agent has steadily increased. As it has been well expressed by Dr. Wilks, Editor of the London Lancet, "there are few things more remarkable in the recent history of medicine than the extent to which Alcohol has been introduced, and the importance which has been attached to it in the treatment of disease."

In the present paper it is proposed to offer some remarks upon the treatment of wounds, surgical and traumatic, with Alcohol. The idea thus enunciated is by no means original; on the contrary, it was known to Hippocrates, Galen and Ambroise Paré. An analysis of preparations employed by them in the treatment of wounds, need not be very searching to prove that Alcohol was often the basis of their interminable and now superannuated formulas. Two illustrations will be sufficient. The "balsam of Fioraventi" was composed of turpentine, myrrh, aloes, ginger, canella, with other substances and more than three thousand parts of Alcohol. Again, the barbarous practice of scalding gunshot wounds with boiling oil, was changed by Ambroise Paré for the employment, with other applications, of the Alcoholic solution, or tincture of myrrh.

Coming down to more modern times, Alcohol was used by Baron Larrey during the campaigns of the first Napoleon. Since then it has been employed as a popular remedy both in France and America. In the year 1859, M. Batailhé, of Paris, published ("De l'alcool et des composés alcooliques en chirurgie") the result of some experiments performed upon the lower animals. Among other points, it was proven that Alcohol favors the immediate union of wounds in three ways;

first, by arresting hemorrhage from the smaller vessels (blood being a great obstacle to perfect coaptation); second, by producing immediate coagulation of albumen; lastly, by promoting the plastic secretion.

At a somewhat later period, Alcohol was introduced as a surgical dressing into two of the principal Hospitals of Paris;—by M. Dolbeau, at the St. Louis Hospital, and by M. Nélaton, at the Clinical Hospital. Of forty-eight cases treated at the latter Hospital during the first eight months of 1864, forty-two healed rapidly, and three after an attack of Erysipelas. Three terminated fatally; one from Cancer, one from Phthisis and one from purulent absorption. Thirty-nine were the result of important operations, such as amputation of the leg and the removal of an enormous tumor. In one case the denuded surface measured six inches in the transverse diameter. The Record for 1863 shows an equal degree of freedom from Pyaemia, Erysipelas and like accidents. M. Nélaton and others believe that these results are dependent, in a great measure, upon the therapeutical effects of Alcohol.

I propose to consider these effects with special reference to changes which may take place in wounds healing by the second intention. For an accurate and scientific description of these changes, I am indebted to Mr. Paget. ("Lectures on Surgical Pathology," Philadelphia, 1860.) He informs us, that after the infliction of an open incised wound, the blood gradually ceases to flow, and is followed by a blood-tinged or serous looking fluid; this gradually becomes paler, and collects like a whitish film or glazing, upon the surface of the wound. Moisture, whether in the form of water, dilute Alcohol or Glycerine, will produce this result.

According to the same authority, this condition, called by him the state of calm or inactivity, is ended in from two to eleven days, by the return of blood to the part. In what way the ordinary water dressing can favor this return, it is difficult to understand. On the contrary, Alcohol assists reaction, not only by its known power as a local excitant, but also by being absorbed, and thus stimulating the general circulation.

M. Chédervergne, of Paris, has published ("Du traitement des plaies chirurgicales et traumatiques par les pansements à l'alcool," p. 15. 1864.) three cases going to prove and illustrate the truth of this statement. He states that in Dec. 1863, a patient entered the Clinical Hospital, carrying an enormous tumor, situated upon the posterior part of the left leg; this was removed, leaving a large denuded surface, extending from the propliteal space to the heel. An Alcoholic

dressing was applied, and five days after the patient showed symptoms of intoxication, which it was impossible to attribute to any other cause, than the treatment employed. He also mentions (*ibid*, p. 21.), two other cases in which a feeling of exhilaration was excited.

Looking at the subject merely from a theoretical point of view, we should fear that Alcohol, by its local and constitutional effect, would excite excessive reaction. Such, however, is not the result of actual experiment at the Clinical Hospital; and M. Le Court, Professor at the Medical School of Caen, states ("Une lettre avec des observations cliniques sur l'emploi des alcooliques en chirurgie."—Paris, 1859,) that he has employed Alcohol as an application to wounds in at least fifty cases, and that in only a small proportion of the entire number was he compelled to suspend the use of the dressing, on account of too great inflammatory action. Some degree of inflammation seems necessary, since, in the opinion of Mr. Paget, (p. 140,) the ordinary process of granulation is in its commencement morbid, and resembles inflammation in at least two points, "namely, 1st, that the increased quantity of blood in the part producing granulations, moves more slowly than in health; and 2dly, that the increased supply of blood precedes the increased production of material." This material is similar, in every visible respect, to coagulable lymph. If undisturbed, it will soon present minute points of vascularity; these gradually increase in extent, and in two or three days give place to granulations.

It is at this stage of the healing process, we so often observe the inefficiency of water or cerate. The circulation in the part is so languid, that the granulations frequently become large, flabby and livid. On the contrary, when Alcohol is employed, the granulations are uniformly florid, granular and scarcely raised above the surrounding tissues. Suppuration or degeneration of the plastic lymph is hardly perceptible.

M. Nélaton and others do not claim for Alcohol an infallibility which does not belong to Quinine or any of the so-called specifics; on the other hand, they *do* believe in its prophylactic power against Pyæmia and Erysipelas, and in confirmation of their belief, bring forward facts relating to the non-occurrence or diminished frequency of these affections. To appreciate the full meaning of these observations, we must remember that they were not collated from private practice, but in one of the largest Hospitals of Paris; a Hospital situated in one of the most unhealthy districts of the Latin Quarter, and presenting an unusual array of circumstances predisposing to surgical com-

plications. Among such, we may enumerate: crowding, poor ventilation, insufficient or inappropriate food, absence of the consolations and encouragements of friends, and generally constitutions naturally weak or debilitated by disease.

All of these influences were present in the surgical wards of the Clinical Hospital, and yet, under the employment of alcohol, only one case of Pyaemia occurred during the first eight months of 1864. In like manner, during the first five months of the same year, there was not a single case of traumatic Erysipelas, although numerous cases of an epidemic nature happened in other Parisian Hospitals. About the first of June, however, the Interne of M. Nélaton reported three cases, of which, the following is an abbreviated translation.

Observation 1st. The first case was that of a young man aged sixteen years. He submitted to an operation for the removal of a large ganglion, situated in the region occupied by the Parotid gland. General symptoms of Erysipelas set in, with chill, fever, and derangement of the stomach. The wound looked well, but on the third day of the fever, an Erysipelatous inflammation was discovered, occupying the shoulders, the scalp, and the eyebrows;—in other words, surrounding the Parotidean region, but always respecting the borders of the wound, and the parts bathed with Alcohol.

Observation 2d. The second case was that of a woman aged sixty-two. On the twenty-third day of May, 1864, she underwent an operation, for the removal of a cancerous tumor of the breast. The same general phenomena, as in the first case, showed themselves;—in two days, Erysipelas appeared, with its customary character, upon the trunk, then upon the arm, near to the breast which had been removed; but did not invade the part which had been dressed with Alcohol.

Observation 3d. The third case was that of a woman forty-nine years old. On the twenty-fourth day of May, she sustained an operation for the removal of a tumor of the thigh. The wound was dressed with Alcohol, and for a time all went well; suddenly, the appetite diminished, and a febrile reaction supervened, followed by a red cedematous inflammation upon the back. In three days, this disappeared; but after seven days, there was Erysipelas of the face.

The three observations thus presented, possess an interest even greater than those relating to the non-occurrence of Erysipelas; they show the enemy no longer kept in the back-ground, but actually making his attack and suffering defeat. In other words, they picture an Erysipelatous inflammation spreading to the very precincts of the wound, and there being arrested.

In addition to what has already been said, it may be remarked, that Alcohol, in common with water, surpasses all other applications in point of cleanliness. When first applied to a denuded surface, it causes a sensation of heat, but in a few minutes this disappears, and after two or three applications, on successive days, does not return. Patients, questioned upon this point, do not complain so much of the hot as of the cold sensation occasionally experienced.

A stranger, entering for the first time the surgical wards of the Clinical Hospital, will notice, that the atmosphere is unvitiated by any foul odor, and unchilled by evaporating water.

And now a few words upon the best method of applying Alcoholic dressings. The Alcohol employed at the Clinical Hospital, is about equal in strength to the dilute Alcohol of the U. S. Dispensatory. Generally, it contains a proportion of Camphor; but this is not considered essential. Occasionally, circumstances may require that the Alcohol should be further diluted. We may raise the temperature of the mixture, and so avoid the disagreeable sensation of coldness, by taking the strong officinal Alcohol, and just before applying it, adding an equal volume of water. The preparation may be brought in contact with the wound by lint or oakum, and the evaporation be prevented, in a great measure, by thick cloth or oiled silk. Usually, it is sufficient to renew the dressing once or twice in the twenty-four hours.

In conclusion, I would say, that I have purposely avoided the discussion of theoretical points. Nor have I noticed an opinion which I once heard expressed by M. Maisonneuve, in effect, that Alcohol causes paralysis of the blood vessels, and so predisposes to secondary hemorrhage. This theory was first proposed by Claude Bernard, to account for the non-absorption of a certain poison, and, so far as I am aware, its truth has never been demonstrated. It has rather been my object to present facts which have been clinically observed by the Surgeons and Internes of the Hôpital des Cliniques. It now remains with the clinical students of this State and America, to substantiate or subvert the foregoing conclusions; to determine how far the beneficial action of Alcohol, as a surgical dressing, will warrant its substitution for less expensive and time-honored applications.

ARTICLE XIX.

TARTARIZED ANTIMONY AND OPIUM IN TYPHUS FEVER.

Read before the New Haven County Meeting, April, 1866.

BY WORTHINGTON HOOKER, M. D.

Having witnessed the use of Tartarized Antimony and Opium, after the method of Dr. Graves, of Dublin, in a case of Typhus Fever upon which I attended, in connection with Dr. C. A. Lindsley, I was led to examine the reports which Dr. Graves gives of his practice, and will lay some of the results of that examination, very briefly, before you, together with the case itself that suggested it.

Medical men have been accustomed to think of Tartarized Antimony as applicable only to asthenic febrile conditions, because its action is usually of so depressing a character; but the practice of Dr. Graves shows, that there are febrile conditions most decidedly asthenic, in which not only is it applicable, but it is curative to a degree surpassing anything which appears in its ordinary use. It is so generally, however, in connection with Opium, the action of this latter remedy being essentially modified by it. But this is by no means always so, for in some of the cases reported by Dr. Graves, the tartarized antimony was used alone, with most decided beneficial results.

The circumstances under which the peculiar practice of Dr. Graves is applicable, may be seen from the following extract from one of his lectures:—

“I wish you clearly to understand, that after the headache and cerebral excitement, which accompanied the very commencement of the fever, had been subdued, or had ceased, after sleep and calm had returned, and had continued for many days, then a new order of things commenced, subsultus, watchfulness, muttering, raving, involuntary discharges, &c.,—all denoted great derangement of the nervous system; but still there was no proof that this derangement depended on cerebral congestion. After a few, or after many days, however, unequivocal symptoms of the latter set in; the face and eyes became suffused and flushed; the pupils manifested a tendency to become contracted, and occasionally convulsions took place; the patient became totally sleep-

less. When the latter and dangerous period of the fever was accompanied by the former nervous part of symptoms *alone*, they yielded to wine, water, porter and opiates; but when the symptoms indicating cerebral congestion were superadded, then it was that the case assumed so great and striking a similarity, so far as the functions of the nervous system were concerned, to the well-known variety of delirium tremens, accompanied by cerebral congestion, to that variety of delirium tremens, in fact, which only can be successfully treated by the judicious but bold exhibition of tartar emetic, combined with laudanum."

This treatment was applied at an advanced stage of the disease,—in only one instance, I think, before the latter part of the second week, which, in true typhus, is quite an advanced period. It was after whatever that might be sthenic in the cases had passed by, when the pulse had become very quick and feeble, and all those symptoms were present which are considered as calling for tonics, stimulants, and a sustaining diet. I quote some of the notices of the pulse in the different cases:—weak and rapid—140, quick and steady,—obliterated by the slightest pressure—not to be counted and scarcely felt—110, oppressed, unequal and weak—130 and jerking—108 and wiry—144.

The cases treated were all of a decided character. I give, as a specimen, a summary of the symptoms of one case, at the time when the treatment by tartar emetic and opium was commenced. Patient so unmanageable as to require the straight-waistcoat; obstinately silent; refusing to put out tongue; countenance morose and haggard, at times ferocious; eyes glazed and slightly suffused; extremities cold and livid; body hot; maculæ over whole surface; pulse 132, small and wiry; respiration 42 and irregular; tongue dry and dark brown in center; fæces and urine discharged involuntarily. There was given, every half hour, half an ounce of a mixture consisting of eight ounces of water, four grains of tartar emetic, and two scruples of laudanum. Three hours after, (at mid-day,) he grew worse, becoming exceedingly violent, with alternate screaming and laughter, the expression of the countenance being exaggerated by constant rolling of the eye balls and frequent squinting; the carotids now beating violently, though the pulse at the wrist was still wiry. The medicine was now ordered in double doses.

He was gradually quieted, and in the evening, after he had taken in all four and a half grains of tartar emetic, with only twenty-three drops of laudanum, he lapsed into a tranquil sleep, with free perspi-

ration. After this the medicine was given, not at regular intervals, as before, but according as the symptoms required it. The next day he was quiet, answering questions rationally, though somewhat confused; pulse 96, respiration 30, and in a few days was fairly convalescent.

There are 26 cases, in all, reported by Dr. Graves. Most of them were his own, but some of them were communicated to him by others; one by a physician who had treated 17 cases successfully, after Dr. Graves' plan. Though they present considerable variety, in all of them were the marks of a deep typhoid condition, and the prominent characteristics were persistent sleeplessness, and more or less *active* delirium. As you have seen in the extract which I have quoted from one of his lectures, Dr. Graves considered cerebral congestion, as evidenced by heat of head, suffusion of the eyes, flushing of the face, &c., to be the element which called for the use of the tartar emetic. The proportions between this remedy and the laudanum, varied much in the different cases, and in some, the tartarized antimony was given alone. The amount of laudanum used was generally small, as seen in the case of which I have given some of the particulars. The tartar emetic was given, to the amount of from $\frac{1}{8}$ to $\frac{1}{4}$ of a grain, once in one or two hours, but sometimes even to $\frac{1}{2}$ a grain every hour or half hour. The largest amount taken in any case, was 20 grains in 30 hours. The condition in which this patient was, when this treatment was commenced, is thus described: "Eleventh day. Became very violent yesterday evening; attempted to get out of bed frequently, but when spoken to by the nurse, he remained quiet for a short time; was constantly raving and gnashing his teeth during the night; had no sleep; a short time before visit this morning, had a fit of epileptic character which lasted about ten minutes; at the hour of visit, 9 in the morning, the countenance was flushed, anxious, and expressive of great ferocity; eyes wild and suffused; pupils natural; complains of dimness of vision; eye-brows contracted; breathing hurried; is constantly tossing himself from one side of the bed to the other, and tearing the dressings off the blistered surface; skin hot and dry; abdomen soft; no tympanitis; bowels loose; tongue parched and furred; he is incessantly protruding and biting it, and gnashing his teeth; pulse dicrotous, very quiet, and somewhat hard, but small." This patient took but one drachm of Laudanum, and yet, in less than 24 hours he was quieted and put to sleep, the pulse becoming regular at 80 in number. Though he took so large a quantity of tartar emetic, he was nauseated but once.

In very few of the cases was there any nausea produced by the tartarized antimony, showing that the influence upon the cerebral excitement was not the result of that action of this remedy which is witnessed in those common cases of disease, where it is used chiefly for its depressing effect. The fact also that it did not add to the depression already existing, as indicated by the state of the pulse and other symptoms, shows this.

In some of the cases it caused large fluid stools, and though, as Dr. Graves says, this was always beneficial, yet it was not at all essential, for in many of the cases where the tartar emetic had the desired effect upon the cerebral excitement, there was no mention made of any effect upon the bowels.

All the facts seem to show that, under the circumstances, although opium is generally an important adjuvant in allaying the cerebral excitement, it is only an adjuvant, and the effect results chiefly from the tartarized antimony. This is shown, not only by the fact that in most of the cases the amount of laudanum used was not large, and in some very small, but also, by the very significant fact that, in some of the cases, the tartar emetic was used alone. Indeed, farther observations are required to decide whether the tartar emetic is not competent alone to effect the object in a much larger proportion of cases, for there is not observable any very marked difference between the cases in which it was given alone, and those in which the laudanum was given with it, so far as we can judge from the reports of them. There needs to be, indeed, a rigid investigation of the whole of this interesting subject. The point maintained by Dr. Graves, that so far as the cerebral excitement is purely nervous, opiates are required, and so far as it depends upon cerebral congestion, tartar emetic is called for, is by no means established. And then, the distinctions which can be made between these two conditions have not been well defined, much less have they been proved.

I conclude with a brief report of the case which suggested the examination of the cases of Dr. Graves.

A. M., aged 22, unmarried. Oct. 15. In the third week of Typhus fever. During the early part of the disease, the restlessness was easily controlled and sleep procured by morphine. But for the past 60 hours there had been no sleep, and his condition was as follows:—Pulse irregular, from 120 to 140, tongue dry and tremulous, much sordes, subsultus tendinum constant and great, extreme nervous agitation, continual delirious talking, frequent attempts to rise and get off the bed, reaching in the air after imaginary objects, intense heat of

head, in spite of application of ice, extremities disposed to be cold, capillary circulation very feeble. In the consultation, in which Dr. Daggett joined us, it was decided to give the following :—

R. Tart. Antimon., gr.ij.
Morphine Sulph., gr.j.
Aquæ, . . . ℥viij.
m.

Half an ounce to be taken every half hour till sleep is produced. Give also milk-punch and animal broths, as before, freely. Five hours after the medicine was commenced, he became quiet, and went to sleep. It was given afterwards as it was required, being gradually lessened in frequency, and on Friday, (Oct. 20,) he took it only every 4th hour. He had been gradually improving up to that time. But on Friday evening there was an increase of fever, the head and skin generally being hot, the pulse quick, more delirium, and return of the subsultus tendinum. A drachm of a solution of morphine (one grain to the ounce) was directed to be given every hour, till sleep was procured. On Saturday (21st) was better in all respects, pulse 100. But on Sunday (22d) was worse, although the morphine had been given freely ; tongue red and dry, more delirium, sleeplessness, pulse 128, skin hot. Had been taking, for twelve hours, two grains of quinine every fourth hour, which was directed to be continued. The tartar emetic was now resumed with the morphine, thus :—

R. Tart. Antimon., gr.ij.
Morphine Sulph., gr.j.
Aq. Camphor, ℥iv.
m.

A dessert spoonful of this was given every second hour. After three or four doses, fell into a quiet sleep, with pulse at 90. The next morning he was rational, and from that time gradually recovered.

This case is decidedly confirmatory of the value of Dr. Graves' practice, and especially as the morphine, when given alone, failed to do what the combination of morphine and tartar emetic accomplished at *two* different periods of the case. It is to be regretted that Dr. Graves has given us only his successful cases, merely acknowledging the fact that the practice sometimes failed in his hands. In order to get at the exact truth, we need to have all the facts, the unfavorable as well as the favorable. Still, enough is proved by the cases which he has narrated to show, that tartar emetic, both alone and in connection

with opium, stands preëminent as a remedy for certain conditions of Typhus Fever.

It cannot be said that in the 26 cases reported by Dr. Graves, and in the case under Dr. Linsley's care, the recoveries occurred without influence from the remedies used, merely by the recuperative power of nature ; for the symptoms were of the gravest character, and such as are commonly followed by death, and the essential remedy, the tartar emetic, must, in the quantities employed, have produced a very decided effect, either for good or for ill. The results were not only too decided, but too uniform, to make it proper to refer them to anything but the medicine. Besides, in Dr. Linsley's case, and in some of the cases of Dr. Graves, the test of a second application of the remedy was tried.

The *modus operandi* of the tartar emetic in tranquilizing cerebral excitement in these cases, is not at all clear. It is plain, however, that it is not to be explained by any reference to the ordinary palpable effects of the remedy, but it seems in some respects to be inconsistent with them, though undoubtedly it is not so. Much remains yet to be observed in regard to it; not so much in seeking its explanation, as in marking definitely the conditions that call for the use of the remedy, and in noting the circumstances that modify its action, so that it may be applied in each case in the best manner.

ARTICLE XX.

SPECIALISM IN MEDICINE.

BY ASHBEL WOODWARD, M. D., OF FRANKLIN.

Read before the New London County Medical Meeting, April 12th, 1894.

SERIOUS evils often arise from the misapplication of local laws. Theories that work beautifully in one employment, not unfrequently fail utterly when extended to others. In mechanical pursuits, increase of production from a division of labor is a favorite fact of the political economist. But the mode of applying labor, most efficient in the manufacture of needles, may lead to narrowness and injury, if transferred to the learned professions. Because the fingers employed for a score of years in polishing a shaft or rounding a point, become expert and nimble in that particular work, it does not follow that the theologian should confine his researches to the origin of evil, or that the lawyer should devote the exclusive energies of a life to the investigation of titles. He is the wisest religious teacher who comprehends most profoundly the spiritual relations subsisting between the soul and the universe. The wisdom which illumines the path of man, showing a way of deliverance from one perplexity, will deliver from a thousand. Wisdom is manifold and many-sided, seen only by the eye that takes in a broad segment of the horizon. Lawyers, whose clear insight into the eternal principles of justice has builded systems of jurisprudence on enduring foundations, have stood equally ready to grapple with any and all questions falling within the scope of their profession. The statesmen, who have given birth to nations, and shaped the policy of empires, have been no specialists, but men whose vision covered the arena of politics. Depth and breadth are required to establish systems. In subordinate positions, indeed, the victim of a single idea may seem to effect marvels, but results will show his achievements to be narrow and temporary. The child will grow only to the stature of the parent.

The prevalent popularity of specialism in medicine, springs in no small measure from a perversion of the principle that justifies the subdivision of labor in the mechanical arts. Were the human system a mere machine, like an engine or a watch, there would be reason for thus extending the theory. But the subtle relationships subsisting between the parts of the human frame, their mutual dependence and reciprocal offices, above all the subordination of the whole to that mysterious force, the vital power, lifts the animal body far above the law of inert matter. In the exercise of our vocation, we deal with something inconceivably transcending mere bone and muscle, fibre and tissue. If one member suffers, all the members suffer with it. Nature abhors hobbies and narrowness. Broad as the universe, and lasting as time, she scorns to reveal her secrets to the bigoted, partial inquirer. From her votaries she demands somewhat of her own breadth and generosity.

A skillful general, on the day of trial needs to be informed of the movements on all parts of the battle-field. If he neglects the wings, the enemy will turn his flank; if he looks to the wings alone, the enemy will crush his center. So it is in medicine. The eye, the ear, the heart, the lungs, are related parts of a complicated organism. Slight circumstances may determine where the disease is to make its first onset. Often, the tendency to disorder lurks in the system, waiting for a slight local injury, or inflammation, to invite attack upon the imperiled organ. The remote cause is permanent and all pervading; the proximate cause accidental and temporary. Sometimes the effect is far in excess of any apparent cause, the resulting disorder being wholly disproportionate to the initial derangement. Shall the practitioner now direct all the resources of his art to the restoration of the suffering member, regardless of the enemy beyond, who has but established an outpost where the malady first declared itself, and is equally ready to advance upon a score of other points? What would be thought of the general, with armies to lead, campaigns to plan, and victories to win, who understood only the science of fortification, or the maneuvering of infantry, or the theory of projectiles? Ruin would overwhelm him at the first trial. Uniform experience, covering more than thirty centuries of time, proves that success in arms depends on the union of comprehensiveness of intellect with quickness of perception. In medicine a similar rule prevails. Disease is one of the most subtle and vigilant of foes. Its messengers hover unseen in the air, sweeping across seas and continents, surprising amid security, and, with a beckon from their spectral fingers, summoning

thousands to the court of Death. Disease fights behind masked batteries, neglecting no advantage. How absurd, nay criminal, then, to restrict preparations for defense to a single pass-way, when a score are endangered! The eye sees dimly, and in pain, because poison circulates through the system; the lungs disintegrate, because the vital energies run low, and the vital forces are perverted. Shall we deal then with the eye or with the lungs as independent organs, bound by no laws except those regulating their peculiar functions? Yet this is what the specialists propose. The tendency of local practice is to magnify the importance of local disorders and of local remedies. The judgment becomes warped by too exclusive attention to single objects.

In evidence of this, we need only refer to that numerous class of uterine disturbances, a class of troubles from which the females of a former age were happily exempt. Here, as elsewhere, narrowness leads to error of diagnosis. With all the *light* that the speculum has shed upon this inviting and thoroughly explored field, not a tithe of the diseases claimed to be there discoverable, do exist, other than in the eye of the observer.

Nor does any sufficient reason exist for excepting surgery from the general rule. The skill which permits a successful operation upon the ear or eye, will avail equally when applied to any part of the body. Whatever routine of practice excludes a single limb or organ, is by so much too circumscribed. The capabilities of man, "god-like" and long lived, are adequate to master the art in its details. If one cannot become skilled in all departments, he cannot in any; and contrariwise, if he is endowed with the gifts which enable him to operate successfully upon one organ, he can operate successfully upon all. Facts sustain our position. Without exception, the lights of surgery have performed all operations equally well. Furgusson, Valpeau, Mott, were too great, too thoroughly saturated with a spirit of devotion to their work, to be pinned down to a specialty. Every surgeon of equal genius must be equally expansive in his aims. True, some specialists have earned more or less celebrity, in spite of the cramping influences with which they have surrounded themselves. The merit, when genuine, would have been far more richly rewarded, we believe, had it been more liberal in scope. In the judgment of well regulated minds, the presumption will be against the operator who lacks the genius and the ambition to claim as his own the entire field of surgery.

Moral considerations weigh against specialism. More and more our profession is consolidating into a brotherhood, united by common sympathies and noble aims. Generous souls can yield no room to pettiness or jealousy. Our conventions have adopted a code which promises to extirpate the last root of bitterness, and to lift the profession "out of the shot and danger" of reproach. One prominent feature of the code requires that the practitioner shall advertise only by his merits. Artifices, insinuations, secrecy and parade, are rigidly prohibited. These wholesome regulations the specialist is under constant temptations to violate. To become broad and noble in action and character, one must first become noble in aims.

I cannot, perhaps, more fittingly close this paper, than by transcribing some just and significant remarks from an address* delivered before the Royal College of Surgeons, not on specialism, but on the progress of surgery, by a distinguished ornament of our profession, Dr. Fergusson,—now Sir William Fergusson,—he having been recently knighted, entirely on the ground of professional distinction, an honor rarely conferred, it having been over thirty years since the last was conferred on the distinguished Benjamin Brodie.

He says, "Throughout the history of our profession, from the earliest date to the present time, distinctions have been drawn between surgery strictly and physio. The wisdom or necessity of drawing such distinctions is very questionable, particularly since the passing away of the dark days of surgery, when an inferior class acted under the orders of those who themselves could know but little of the art. As our profession gets older, the custom becomes less apparent, although in large and populous districts there will always be those who devote themselves specially and respectively to these departments. This, in my opinion, depends upon, and is determined by, natural habits and tastes, rather than upon any actual necessity that the two should be disjoined, or that a union of skill in both is incompatible with man's mental and physical powers. I cannot myself see why there may not, should not, could not be such a combination."

* * * * *

"And the impression seems to get stronger, that whilst a physician must be all the better for a good knowledge of surgery, the surgeon must be a poor practitioner who has not a knowledge of physio." "One of the greatest lights in surgery, Sir Benjamin Brodie, who has but recently passed from amongst us, was as

* This Lecture may be found entire in "The Lancet," [Amer. Edition, Dec. 1866, p. 553.]

much distinguished in this respect, as for his power in surgery, properly so called ; and the professional reputation of Abernethy was as much based on blue pill and black draught, as upon tying great arteries, opening abscesses, or any other surgical proceedings with which his name was associated. In fact, the term '*pure surgery*,' should, in my opinion, be banished from our vocabulary."

BIOGRAPHICAL SKETCH OF

MELINES C. LEAVENWORTH, M. D.

BY P. G. ROCKWELL, M. D.

In the recent war which has so seriously afflicted this nation, there were innumerable instances in the ranks of the Medical (as in all other professions and employments) of individual sacrifices, and patriotic devotion. Most prominent in our minds are the names of those who have laid down their lives in the service of their country.

This long list contains the name of one of the oldest members of the New Haven County Medical Society. I refer to the late Dr. Melines C. Leavenworth, who died while in the service of the U. S., and in the line of his duty. Melines C. Leavenworth was born in Waterbury, on the 15th day of January, 1796. He was the eldest son of Mark Leavenworth, who was a native of New Haven, and one of the pioneers in the manufacturing business, in Waterbury,—a man of energy and ability—thorough and practical in the training and education of his family. The subject of this sketch early developed a taste for reading and study. He is remembered as spending the hours allotted for recreation, in his childhood, in reading history and the natural sciences.

At the age of fourteen he was placed in the Cheshire Academy, under the tuition of Rev. Tillotson Bronson. After a year's study he was removed to the Ellsworth Academy, taught by Rev. Daniel Parker, where he remained three years. During his preparatory course he became quite well versed in History, the Greek and Latin languages, and in the natural sciences.

At the age of eighteen he commenced the study of medicine with the late Dr. Edward Field, of Waterbury, but soon removed to Great Barrington, Mass., and entered the office of Dr. Baldwin, of that place. After a year he placed himself under the tuition of the late Dr. Jonathan Knight, and subsequently under that of Dr. Eli Ives, of New Haven. Under the tuition of Dr. Ives he commenced the study of botany as a specialty. He attended two courses of lectures in the Medical Institution of Yale College, and graduated in the class of 1817—at the

age of twenty-one. His time in attending lectures was well employed, judging by his ample notes from the lectures of the eminent men who taught the several branches in those days. And from his subsequent developments it is obvious that he learned more and remembered more than most students have done, with the same opportunities. After his graduation he devoted himself exclusively to the study of botany, in which he had already become very much interested, and was placed in charge of a botanical garden, which was cultivated for the benefit of the Medical College, through the influence of the late Dr. Eli Ives.

In the year 1819 he made an engagement with a Dr. Whitlaw, as an assistant lecturer on botany, and made a tour through most of the Southern states. He had possessed himself with knowledge of the flora of the New England, and some of the Middle states. His new engagements enabled him to prosecute his favorite study with augmented advantages. He familiarized himself with the flora of every state and territory into which he traveled.

After having completed his engagement with Doctor Whitlaw, he spent a few months in the study of the French language, under a competent teacher, in Augusta, Ga.; from thence he repaired to Cahawba, Ala., and there commenced the practice of medicine. After a few months residence in this latter place, he was attacked with one of the epidemic fevers of the locality, which nearly caused his death; his health suffered to such an extent, that he felt it necessary for him to return to Augusta, where he engaged in the Drug business for a period of four years, at the expiration of which time he made application for the position of Assistant Surgeon in the U. S. Army. He was successful in his examination, and entered upon his duties immediately. He remained in the army eleven years. He was successively stationed at Forts King, Jessup, Tuson and Leavenworth, and at Black Creek and Camp Sabine, and finally, at Fort Gratiot, Michigan.

He served through the Florida war, and discharged his official duties with credit to himself and to the medical department of the army. During the eleven years of his army life, he availed himself of every opportunity to extend his botanical researches. Whenever he obtained leave of absence, instead of returning home to his friends, he penetrated the wilds of Texas, and on the plains, making diligent search for new specimens of plants, in unexplored regions. His contributions to that branch of science were repeatedly and handsomely acknowledged by Drs. Torrey and Gray, in their large work on the Flora of the United States, in Silliman's Journal of Science, also by

numerous compilers and private correspondents. He was, for a time, almost the only investigator, or rather the pioneer, in those investigations, in the particular localities at which he was stationed; and his labors resulted in valuable additions to botanical science. Had Dr. Leavenworth preserved for himself a specimen of each *new* plant he discovered, his herbarium would have been something of a history of what he accomplished, and would have surprised many who are well read in this branch. But he was truly unselfish, singularly retiring and unostentatious. He labored for the love of science and the good of others, regardless of his own fame.

Dr. Leavenworth's reputation as an army surgeon, (learned from officers who served with him,) was good. He was competent and faithful in the discharge of his duties, and popular with his men. He had natural qualifications for camp life on the frontier. His genial nature, the ease with which he adapted himself to circumstances,—rough or smooth,—his general intelligence, his capacity and willingness to impart information to those with whom he was associated, together with his kindness to all dependents,—equaled only by that of a mother to her child,—made him one of the most useful of army officers.

Dr. Leavenworth resigned his position in the army in the year 1842, and returning to his native place, there opened an office for the practice of his profession. But he never seemed quite contented after the change; he seemed to long for the free social enjoyments and intercourse incident to camp life. He frequently expressed to the writer his regrets at the change. He was annoyed by the arts of competition which are sometimes displayed.

Dr. Leavenworth was a man of medium size, with a bright sparkling eye, and when engaged in conversation was instructive and often brilliant. He had wit and humor, but it was rather evanescent; he could not always draw upon it at sight. At times he was sarcastic and keen at repartee.

From some cause, he became singular in many of his habits. He was evidently a close thinker, and when absorbed in thought it required no little effort to gain his attention. Speaking to him would not arouse him, yet a beautiful flower or an anomalous vegetable growth, placed within the range of his vision, would awaken him from his reverie. He lacked system, from the force of habit, rather than from any elemental defect; and this was the great reason why many of his efforts were not better appreciated.

His more distinguishing faculty was memory. He was a living

encyclopedia of knowledge, of events, dates and facts,—remembering almost every thing he ever heard, read or saw. He seldom found it necessary to re-peruse a book, or to re-investigate a subject, when once mastered. This remarkable faculty made him valuable in consultation at the bedside. He never wrote much for the press; he disliked to systematize his thoughts and put them on paper. The Doctor was a man of spotless integrity and purity of character. If he had an enemy, I am ignorant of the fact.

At the age of twenty he made a public profession of religion, and united with the Congregational Church in Waterbury, ever afterward living a consistent Christian life.

His benevolence and kindness were often manifested. Late in life, the support and care of a family of orphans, the children of a deceased sister, devolved upon him. He labored to supply their wants, with the fidelity of a parent. He was never married. In his intercourse with his professional brethren he was eminently conciliatory and charitable, even to a fault.

On the breaking out of the rebellion, Dr. Leavenworth early applied for the position of surgeon in one of the Connecticut Regiments. On account of his advanced age, and the laborious character of the service, he was induced to recall his application, and to accept the position of assistant surgeon in the 12th Regiment Conn. Volunteers. He entered upon his duties while the regiment was stationed at Hartford, in the autumn of 1861. In the following winter he accompanied the command South,—landing at Ship Island,—finally arriving at New Orleans, at the time of its capture. Here he discharged his duties faithfully, sustaining his early reputation as an army officer. In the fall of 1862, he was taken with pneumonia, and died on the 18th of November, honored and beloved.

The memory of Dr. Leavenworth will be ever green to all who knew him. His remains were returned to his native place, and with suitable military honors, buried in the beautiful river-side cemetery, beside his kindred.

OBITUARY OF

CALEB H. AUSTIN, M. D.

One after another the venerable and useful citizens of New Haven are cut down by death. We now mention the departure, August 3d, 1866, about one o'clock, P. M., of Dr. Caleb H. Austin, a highly useful, intelligent and respected physician of this city, aged 72 years. In early life he pursued his studies here under Dr. Tully, and attended the course of lectures delivered to the medical students, at that time. Entering on the practice of medicine immediately after this, he has for more than fifty years followed the profession, and is kindly remembered as a faithful, sympathizing physician, in the various towns where he resided. Being at Middletown when the cholera first came to this country, he was appointed one of a commission to proceed to New York and study its true character. He has himself often suffered from severe illness; when at Buffalo, N. Y., where he resided when the cholera visited the country the second time, his exposure and great fatigue in attending to the sick caused him to contract the disorder, from which he barely recovered. At Haverstraw, N. Y., he was prostrated by an attack of ship fever, raging there at one time during his residence and practice in the place. So in this city he has within the twelve years in which he has lived here suffered once or twice from acute disease, and this notwithstanding he was a person of strong, noble frame, and at past seventy years of age, apparently in the enjoyment of the best of health. Dr. Austin was much esteemed among the brethren of his profession, and his judgment in cases of sickness much relied on. He was a native of Canaan, but his father, Dr. Caleb H. Austin, removed his family early to Milford, where they continued to reside for many years. Dr. Austin was for more than fifty years a professor of religion, and through his long illness enjoyed its consolations. When twenty-seven years of age, he was elected an elder in the Presbyterian church, and at the time of his death was a member of the Howe street Congregational church in this city. He leaves a widow and an adopted daughter.

At a meeting of the New Haven Medical Association, held August 4th, at the house of Dr. N. B. Ives, the following resolutions were adopted:

WHEREAS, In the providence of God, another member of this Association, one of the oldest physicians, Caleb H. Austin, has been taken from us by death; therefore

Resolved, That in parting with Dr. Austin, we have lost an honorable associate and personal friend, whose many virtues, professional and Christian, we shall not soon forget. His character as a man and his long-tried and faithful services as a physician, in this and other communities, have endeared his memory to thousands.

Resolved, That we sympathize with the family of the deceased in their bereavement, and that a copy of these resolutions be sent to them by the Secretary.

Resolved, That we will attend the funeral of our departed brother and wear the usual badge of mourning.

Attest,

W. L. BRADLEY, M. D., Clerk.

MEDICAL COMMUNICATIONS.

ARTICLE XXI.

"THE SELF-RESTORATIVE POWER,"

IN THE LIGHT OF MODERN SCIENCE.

Being the Annual Address delivered before the Convention, in the Hall of Representatives, May 22d, 1867.

By the President of the Society,

ISAAC G. PORTER, M.D., OF NEW LONDON.

A self-recuperative, vital endowment of the animal system, was early recognized by Hippocrates, and by him named *φύσις*, or nature; a term which, by ancient usage, is equivalent to our expression, "vital, or organic force." At the same period, the humoral pathology had its origin, and from it, the self-restorative power received support in the evidence afforded, that its claims were founded in truth; and it is by no means improbable, that the recent increased confidence in nature, and in conservative medicine generally, may be traced, in part, to a revival of the old pathology of the humoralists.

Van Helmont is said to have first stated, in terms, the same important principle, and to have named the power, or agent, "the archæus," or regulator. In his theories, it was made to assume various functions, and characteristics, according to the position which it was supposed to occupy at the time; thus, in the words of a commentator, "being a convenient, and never-failing aid, to which he had recourse, for the purpose of explaining all the actions of the system, whether in health or disease."

The "anima" of Stahl differed but little from the archæus of his predecessor, it being, as he supposed, the animating principle in all living matter, and which resided in the soul.

More recently, Cullen, in his preface to his Theory and Practice, says:—"At all times, physicians have observed, that the animal economy has, in itself, a power, or condition, by which, in many instances, it resists the injuries which threaten it, and by which, also,

on many occasions, it corrects, or removes, the disease induced, or arising in it."

The views of Sir Gilbert Blane are still more positive. "The benefit derivable to mankind at large, from artificial remedies," says he "is so limited, that, if a spontaneous principle of restoration had not existed, the human species would, long ago, have been extinct."

If this opinion is entitled to respect, is not the subject one of vast magnitude, demanding not merely discussion, but more attention than it ordinarily receives in our systems of "Theory and Practice?" The eminent Trousseau speaks of it, as highly important, but too little understood.

The ancients applied this agent to both physiology and pathology, while the moderns limit it to the latter; a distinction founded in nature; since physiology has relation to the body in health, while pathology has reference to the same in disease.

The self-restorative power, as well as its congener, life, is known only by its effects. The Author of our being, in the plenitude of His benevolence, not only bestowed, upon the vegetable and animal creation, the gift of life, but so exuberant and overflowing was the fountain, that He annexed to their several organisms, including the human body, that "cunningest pattern of excelling nature," the faculty of warding off, or repairing many injuries incidental to existence, and of averting, or removing many forms of disease; and, in all, of being an efficient aid, if not an indispensable requisite to recovery.

As, according to the science of projectiles, bodies thrown off into space, continue in motion a longer, or shorter period, in proportion to the amount of force imparted at their outset, so it is with the nature and source of the "*vis medicatrix naturæ*." Life, physically considered, may be compared, in its origin, to an exercise of such power; but since it differs, in its qualities, from mere matter, it is regulated by different laws; hence its Author has annexed to each organism, the important and inherent principle of vital force; which, again, may be resolved into agents of nutrition, and of repair, each being distinct from life, and from each other; each absolutely necessary to the well-being of the individual, and each owing its origin to the same high source.

This modification of vital, or organic force, exists, as is well known, in different measure in different species. In some of the lower organizations, as in the polyp, repair seems almost unlimited; any portion of a severed specimen being able to reproduce the whole, and in other species still, as in lobsters and lizards, whole limbs are reproduced.

But in animals of a higher type, it is less manifest, in compensation, as it were, for higher organization. In these, however, the commonest structures, such as the blood and epithelium, are rapidly reproduced. With few exceptions, as stated by Paget, losses of portions of the human body are capable of no more than repair in its limited sense, such as the substitution, for the portion lost, of only some lowly-organized tissue, to fill up the breach. Not so curtailed, however, is this principle in the human organism, when suffering, not from mutilation, but from disease.

The constitution of man, or his capacity for labor and endurance, with power also of resistance to injurious influences, is dependent, jointly and severally, upon,—1st, original organization; 2d, on a due performance of all the organic operations of the economy; 3d, on the measure of vital force, of which the individual is possessed, and which may have been inherited, or acquired, and, in either case, increased by obedience to the organic laws. This vital force has been aptly compared to a man's capital in business, which, as all know, may have been, originally, a fine patrimonial estate, or, chiefly, the hoarded result of his own small and humble gains. Whatever its origin, it may be husbanded and increased, by prudence and care, or rapidly expended in "fast living," or hurtful indulgence and prodigality. The self restorative power is increased, materially, by its own exercise, or the habit of allowing nature to do its proper work, and by an uniform compliance with organic law in obeying the principles of hygiene. The young soldier, by the discipline of suffering, or the force of habit, becomes so inured to the inclemencies of the weather, and his power of resistance to the effects of cold is so strengthened, that, for a time after his return to the paternal mansion, he prefers to spend his nights under a blanket in the verandah, rather than take a bed in a close room. Thus health becomes a present duty; and a large "surplus fund" of reserved forces may gradually accumulate, against any unforeseen, yet important demand. Conversely, there may be so much enervation, either constitutional or acquired; the capital may have been originally so small, and the income from nutrition and sleep so meagre, that the individual is barely able to eat and sleep, without performing any of the active duties of life, much less, of opposing an effectual barrier to the inroads of disease, or of eliminating it from the system, should it gain entrance. To this sad condition, a constitution, naturally good, may be reduced by long transgressions of the organic laws, over-work, it may be mental, or physical, or late hours, with dissipation, resulting in a shattered nervous system.

Some one conversing with the late Rufus Choate, whose excessive, and exhausting professional labors are well known, on the condition of his health, spoke of his constitution. "Constitution!" said he, "*that* was given up long since. I am now living on the By-Laws."

But the question arises; how does the *vis medicatrix* operate in restoring disabled function? Is it by some mystic and inherent power, that the suffering organ is restored to health? If weakened by disease, and unable rightly to discharge its appropriate office in the economy, it is surely in no condition to help itself. Everything depends upon the amount of vitality existing in the other organs of the body, whose integrity is unimpaired. Hence the value of the "surplus fund" alluded to, and, also, of all the means, air, exercise and recreation, which, by increasing the energy of the assimilative functions, augment vital force generally. If the suffering organ be connected with the alimentary canal, comparative abstinence from food will, by giving rest to the crippled function, enable the collatitious viscera, in a measure, to do its work, by substitution,—pancreatic, or secondary digestion, perhaps, supplementing faulty gastric action,—until, by drafts on the common stock, deficient vitality in the affected organ shall be restored. When there is local arrest of metamorphosis of tissues, the vital force removes the retained products, and replaces them by new material.

The agent under discussion is also greatly under the influence of mental, and moral force. Faith and hope are among our best tonics, and a cheerful sanguine temperament is one of our best prophylactics. Grief and disappointment, on the other hand, with a 'green and yellow melancholy,' consume vitality, and break the heart; while the gnawings of remorse, waste away the life of its victim, without other cause than 'a mind diseased.' This is partly owing to the fact, that mental emotions actually affect the secretions, through the medium of the related organic nerves, or of the "grand sympathetic," which supply the secreting structures; as in the case, among others, when jaundice results from mental impression, or shock. In severe tropical fevers, a strong foreboding of death is common, and is almost constantly followed by the dreaded event, while a hopeful, courageous disposition, tones up the system, and aids in securing a happy termination. The officers in our late army died from disease much less frequently, in comparison, than enlisted men, owing, partly at least, to a psychological cause; "the superior elasticity of spirit, and moral power of endurance, which is given to man, by investing him with a commission, with its accompanying authority, responsibility, and hopes of

advancement." For similar reasons, acting conversely, colored troops died in vastly disproportionate numbers, divested, as they were, of mental activity, and buoyancy of feeling, of high hopes, and moral, and intellectual culture.*

Prof. Bennett, of the Edinburgh University, standing, as he does, at the head of conservative and rational medicine, delivered, in July last, an address before the British Med. Association, in which he takes the position, that the recent great advance in our science has led, and is leading to various modifications in the rules of practice; and that these modifications principally consist "*in putting more confidence in Nature*," and having recourse, more frequently, to the assistance of diet, and other hygienic influences; not failing to insist, at the same time, that the value of many remedies, in certain diseases, is unquestionable, and that their judicious employment confers invaluable benefits on mankind.

In the advancing spirit of inquiry which is abroad, may we not collate and examine the "powers of Nature," to which the distinguished Professor thus alludes. It is well, occasionally, to review the observations and opinions of former generations, from a modern stand-point. Thus, new reasons may present themselves, for a still higher admiration of the *vis medicatrix nature* of the ancients, as viewed in the light exhibited by recent developments in—

- 1st. Pathology and morbid Anatomy;
- 2d. Organic Chemistry;
- 3d. The discoveries and teachings of the Microscope.

Nor may we overlook new observations in the natural phenomena, or natural history of disease, as exhibited in its course, when uninfluenced by remedial means. It is claimed, that, "to know the natural course of disease, is more than half of medicine." Were it practicable to attain it, no more useful volume could be prepared, for the profession, than a Natural History of Disease, in its separate forms, carefully, and truthfully prepared from reliable materials. A series of experiments on the subject has, for some years, been going on around us. It is possible, *ab hoste doceri*, and proper to acknowledge any indirect benefit thereby resulting to our science.

To the Medical Faculty present, I would say, that, for the purpose of enforcing the object in view, reference must be made to medical facts and principles, which are, doubtless, quite familiar; it being my object, not to impart knowledge, but to excite thought; and to those,

* Trans. Amer. Med. Asso., 1866, p. 493.

not of the profession, that, while the subject is somewhat more technical, and less general and popular than might be desired, yet, so long as they "tabernacle in the flesh," it must have to them, practical points of interest.

To the student of nature, the teachings of pathological anatomy are highly instructive and interesting. Often do our post-mortem examinations reveal the fact, that former diseases, such perhaps as were beyond the reach of medical skill, have been healed by an inherent vital endowment. It is stated, on the best authority, that four-fifths of the bodies of persons dying in advanced life, reveal to the careful anatomist, scars of former internal diseases, from which, through the powers of Nature, or art, or both, they were enabled to recover. A pulmonary excavation, perhaps, had long since existed, by the melting down of tuberculous deposits. Within this, there has been, first, an exudation of membrane lining the cavity, which becomes more and more consistent, until, at length, it is transformed into veritable mucous tissue, the cavity, meanwhile, contracting on itself, until it finally becomes a blind fistula, or a mere cicatrix. There is much in pulmonary affections, which evinces the truth, that where man can do little, or nothing, Nature is often at hand to ameliorate, and sometimes to cure. It is well known that tubercles which are not spreading,—a mere deposit,—are not, by any means, incompatible with life. In *new* deposit is found the danger; and if this be rapid, it constitutes "galloping consumption." But, what less than a renewal of general vitality, or an exercise of the *vis medicatrix*, can interpose a barrier to the extension? So the morbid actions instituted to dislodge the intruder, tubercle, including the primary irritation, the subsequent ulceration, or calcareous transformation, all evince the same conservative tendency.

We next allude to a few diseases, in other regions of the body, which are either prophylactic, or measurably curative, of tuberculous affections of the lungs. Certain infirmities, by a law of exclusion, or of incompatibility, seem to excuse the sufferer from the greater evil. Such are bronchocele, asthma, glandular scrofula, so long as the glands are enlarged, inflamed, or ulcerated,—cystic tumor of the ovary, cancer, organic lesions of the heart, chronic bronchitis, spinal deformity, or narrowing of the chest,—anything, in short, in the opinion of the best pathologists, which interferes with oxygenation of the blood, either by diminishing the capacity of the chest, hindering the expansion of the lungs, or, in any way, deranging the pulmonary circulation. Such, at least, is the result of an immense number of post-

mortem examinations, as conducted and tabulated by Rokitsanski. In a similar manner, a certain fistula is regarded as conservative of life, when conjoined with tubercular affections of the lungs; the best surgeons declining to operate, regarding the fistula as a valuable counter-irritant. If cured, it results in a greater amount of tubercular deposit, or a more rapid softening of that already existing in the lungs.

More decidedly curative however, is, occasionally, the condition of pregnancy in a tuberculous mother. Though the morbid deposit may seem, for a time, to advance, yet the progress is by and by checked; and the benefit resulting, may continue for months beyond the term of delivery. Is not a new measure of vitality imparted, with the changes wrought in the constitution, by the inception of life in the new being? and is it not purely an operation of Nature?

But some may claim, that these instances of exemption from disease prove nothing in favor of the self-restorative power. Strictly, they do not, and yet they are exhibitions of vital force, and inure to the benefit of humanity. Nature's prophylaxis, though different, in its action, from the *vis medicatrix*, yet has with it an intimate correlation, and is, in a comprehensive sense, a part of itself. For similar reasons, we may advert to another pathological law, viz: that inflammation seated in one structure does not, as a general rule, extend to another structure, however contiguous, which has important anatomical differences, thus showing nature's conservatism in disease. On this principle, severe traumatic injuries of the chest may occur, as from a bullet, or a broken rib, but, if nothing penetrates the pleura, pleurisy very rarely follows.

Next, we turn to some affections of the heart, where a wise benevolence has lessened suffering, and prolonged human life. This has been done by limiting disease, or averting its morbid results, by a process itself pathological, as in hypertrophy of the heart, the effect of obstruction. Healthy muscle, whether voluntary or involuntary, develops or increases, in proportion to its use, or exercise. Thus hypertrophy of this organ is the consequence, usually at least, of some obstruction to the course of circulation within itself, or in its neighborhood, as in disease of the mitral valves, or fibrinous concretions at the orifice of the aorta, or a rigidity of this vessel, resulting from calcareous deposits, and the heart enlarges, as the labor which it is compelled to perform is increased. The circulation is thereby aided, and life measurably prolonged. An enlarged prostrate, a permanent stricture of the urethra, or other chronic impediment, causes a sim-

ilar growth in the coats of that organ, whose functions are thus interrupted or impeded. We may also mention the increase in size of one kidney, with the blood-vessels going to it, when the other is incompetent, through disease or injury, to abstract from the urine its share of excrementitious matter.

One other fact, somewhat analogous, is all that will be named. If the tibia, or fibula, be partially removed by disease, or for experiment, that one of the two bones which is left, is apt to undergo a kind of compensative development, becoming thicker and stronger, at the weakened portion of the limb. So, in caries of the spine, the weakened vertebræ are strengthened by bony, splint-like exudations.

Few affections were formerly regarded as more dangerous than pericarditis, or as more imperiously to demand active treatment, particularly depletion and mercury. It now seems settled, that this course is unnecessary, and that many cases recover, with scarcely any medication. According to M. Louis, only one case in six is fatal, if left entirely to Nature, nutriment being supplied to support the strength, while the exudation is going on. So, endocarditis is often not recognized in life, but, that it had existed, at a former period, is shown by inspection after death, its effects being evinced on the valves of the heart.

How great the change which has occurred in the views of many in the profession, respecting the intrinsic danger to life in pleuritis. Flint says: "there is reason to believe, that, without therapeutical interference, it would, very rarely, prove fatal, unless, as a sequel to other diseases, which had destroyed the constitution, or power of resistance." "In short," says he, "the intrinsic tendency of the disease is to recovery, a fatal termination being due, very rarely, to the disease, *per se*. In pleuritis and peritonitis, adhesive inflammation, as is well known, limits the spread of disease, or of extravasated matter. So common are these evidences of prior morbid affection in the *chest*, that the anatomists, who lived in the middle ages, or near the time of the revival of learning, regarded this state of adhesion as normal.*

* It may not be out of place to say, that at the last annual meeting of the New York State Med. Society, a relict of the mediæval ages, an original painting of old Vesalius, one of the anatomists referred to, was exhibited to the Convention, busily occupied (as represented) under the shadow of the crucifix. Was it true piety, or only a superstitious awe, with which he thus approached, and examined, the highest handi-work of the great Architect? In either case, the scene is suggestive of that memorable expression of Galen, uttered fourteen hundred years before, at Rome: "My dissections are, in my soul, constant hymns to the wisdom and goodness of the Deity."

Self-restorative action is also shown in the transformation of tissues. The cellular tissue is regarded as the matrix of the compound tissues. This being true, when mucous membrane is destroyed, it is reproduced, by the transformation of cellular tissue, and the conversion of the latter into the former.

Cellular substance can never be transformed into nerves, yet if situated among nerves that have been divided, the vital endowment of the system will cause them to be held together by the cellular tissue by which they are surrounded; and, subsequently, by the extension of the medullary substance from each divided extremity, in about a year, the nerve is united, and its functions restored. Instances of repair, after surgical injuries, are too numerous to mention, but we cannot forbear alluding to Nature's successful efforts in necrosis, *par excellence*, when, either from the remains of the sound bone, or from the periosteum, nearly an entire shaft is reproduced.

Few diseases seem, at the time, more imperiously to demand remedial aid, than Quinsy; and yet, distressing as it is, to patient and beholder, who has seen a person die of pure quinsy? or who will claim to have, essentially, cut it short by medicine, unless in its forming stage, or by an operation, seldom necessary, near its close? Trousseau, in his long and extensive civil and hospital experience, has never seen a fatal case.

How rarely would Cholera Morbus prove fatal, if left to itself? Delirium tremens, says Aitken, must be treated as a disease spontaneously curable, not withholding remedies, but using them in subordination to good nursing; and in measles, varioloid, erysipelas of the face, not affecting the scalp, and a large number of other diseases, which it is unnecessary to mention, the tendency to recovery is much stronger than towards death. But the more closely we study the pathology of these and other affections, the better will we understand this natural tendency to recovery. Typhoid, or enteric fever, consists, essentially, as every one knows, in an inflammation of Peyer's glands, which must go through certain changes, before recovery can take place. Now, experience has taught us, how very important it is, that we add not to this enteric inflammation, by remedies of an active, or irritant kind. Certain statistics, gathered some three or four years since in the hospitals under the care of the Commissioners of Public Charity in the City of New York, will exemplify how much more rational and effectual is negative treatment. Proceeding on the principle, that pure air and nourishment are indispensable, they placed all who were attacked, on an island in East river, affording most perfect

ventilation. Dr. A. S. Loomis, of New York, who was placed in charge, says: "I have had the care of all the fever patients for five months. During this time, not a particle of medicine, and no stimulants have been employed, and the results have been, one death in every 16½ cases, while, as you are aware, the percentage under the old plan, was one death in six patients." If these main facts are established, and we have no right to question them, how easy to lay claim to great success, from any specific mode of treatment, e. g., the exclusive use of infusions of green or black tea, as is now recommended, suitable nourishment being conjoined. Nothing so well shows superior observation, sagacity, and sound sense, as when a man, for good reasons, breaks away from views and modes of practice universally adopted. Such an one was Nathan Smith, whom we are proud to recognize as a brilliant name on the early records of this Society. Let any one peruse his treatise on typhus fever, written fifty years since, and how little substantial difference will be found, between his practice then, and that of the conservative school of the present day.

There are diseases, as we all know, where the tendency to death is strongly predominant, among which may be named cancer, consumption, pyæmia, chronic diarrhœa, and Bright's disease; but even in these, fresh air, nutritious diet, warmth and rest, are more useful than drugs.

In gout and rheumatism, we have no little evidence of the propriety of adopting a modified humoral pathology, and, scarcely less, of the efforts of nature to dislodge what has been called a peccant humor, or *materies morbi*. But time forbids a discussion of these diseases, further than to say, that while they exhibit the truth, that Nature is competent to effect elimination and recovery, yet the process is vastly expedited by the combined resources of science and art.

In most cases of lead colic, and local paralysis from lead, the disease yields to time, and slow elimination of the poison; some pathologists, among whom is Andral, maintaining that the process goes on just as well, whether medicine is used or not, though others prefer to render the poison soluble, by chemicals, like the Iod. Potass.

In certain cutaneous diseases, the urinary secretion is much disturbed, as if nature were struggling to expel some *materies morbi*; also, in diabetes, where sugar is the offending agent; in the latter stages of Bright's disease, where vomiting and diarrhœa supplement the crippled action of the kidneys, in striving to expel urea; and, in other morbid affections, there is the same evidence of the active efforts of the organism, to eliminate the offender. In these, as in some

reparatory and modeling processes, after wounds, so wise are Nature's designs, even if not always successful, that we cease to wonder, that the *Φύσις* of Hippocrates was regarded by him as possessed of a species of intelligence.

We next advert to a most interesting phase of the subject; viz: the light recently thrown upon it, by *cellular pathology*, as elucidated by the microscope. It is this instrument which has given positiveness to the teachings of physiology, pathology, and diagnosis, and has rendered therapeutics more rational and practical. "The cellular theory of the development and growth of tissues, and its application to pathological structures, has done much to show forth Nature's operations, uninfluenced by human instrumentality."*

Inflammation is the most important of all morbid states. As a consequence of mechanical injury, or the reflex action of cold on an internal organ, exudation of liquor sanguinis occurs. Bennett maintains, 'that an inflammation once established cannot be cut short, and that the object of judicious medical treatment is, to conduct it to a favorable termination,' and that, in this exudation, vital changes of cell growth (as shown by the microscope) are constantly going on, constituting what is called adhesion, suppuration, granulation, or, by slow disintegration, ending in ulceration or gangrene." Now, suppuration in this sense, and adhesion, are not destructive, but formative and reparative. In pneumonia, the exudation is converted into pus-cells; in pericarditis, into fibrous tissue, *all by the force of Nature*, aided, in some cases, doubtless, by art. These views of the process differ slightly from those formerly inculcated, and even from those recently presented by Flint. Watson says: "Watery and brownish sputa, more or less like plum-juice, should induce us to suspect *suppuration* of the lung, and are, therefore, of bad augury." By the term, *suppuration*, he doubtless points to a condition very different from that which Bennett refers to, who says, "we favor *suppuration*, or cell-growth, since, by this process alone, can the exudation be made to disappear." Suppuration, which is formative, (as we daily see in a deep breach of surface) is often confounded with ulceration, which is destructive. The advantages which accrue from allowing Nature to complete her operations, nearly unmolested in simple cases, will appear, when we speak of modern treatment in pneumonia, which disease has been selected, as best illustrating Nature's lesson, and as a type of numerous other

* Bennett.

affections, where it may be dangerous to interfere with her secret processes, by an unnecessary course of active medication.

Allusion has been made to "cellular pathology," and the processes which Nature adopts to expel disease from the system. These have recently been designated, "cell therapeutics," by Wm. Addison,—no mean authority, by the way, in "cell-doctrines;"—"cell therapeutics" being, of course, *Nature's* therapeutics. The term has been so applied by Bennett, Aitken, and other recent authors, and, lately, by its originator, *in extenso*, to scarlatina.

Omitting, as too scholastic, a sketch of cell physiology—the plasma of the blood, the colored corpuscles, and their office, we proceed to give Addison's views on scarlatina. Starting with its pathological stages, he enumerates them as occurring in their well-known order.—1st, a fever; 2d, a rash; 3d, a sore throat and swelling of glands; 4th, exfoliation of the cuticle, and mucous discharges from the throat and nostrils. The fever, which is the first symptom, he claims is caused by an infection of the red corpuscles of the blood, by a poisonous miasm, received through the lungs. The important functions of these corpuscles are disabled; less effete matter than usual is discharged into the liquor sanguinis, and into the air by the lungs. Hence they eliminate less carbon, the kidneys less urea,—and the liquor sanguinis, thus becomes impure. *This*, of course, excites inflammation wherever it goes, especially in the skin, the throat, and the glands adjoining. The skin exfoliates; a large discharge is thrown off from the throat; and, possibly, Nature also attempts a further elimination of the *materies morbi* by suppuration, and abscess in the sub-maxillary glands. If this process, which is critical, is interrupted, then, as is vulgarly expressed, the disease "strikes in," a commotion is excited, and the kidneys, and other internal organs, have the work to do, which is abnormal, and taxes their powers injuriously, and sometimes destructively. The rash, swellings of the glands, &c., are all true inflammations, and subserve a useful purpose, as, when a thorn in the flesh is ultimately detached by suppuration. This action of the cells is purely a natural process, a conservative re-action, excited in the system, by the poison, for the purpose of its expulsion, and explains and justifies the term, "cell therapeutics."

Just at this point some one may say: "Granted, that the facts are as claimed, what advantage is it to us, since it is Nature's work." Formerly, consumption was treated in an active, perturbing manner; but when the natural history of the disease became known, the treatment was entirely changed. Thus, every species of medical

knowledge is useful, and, with these views of the natural history of scarlatina, in the mind of the practitioner, the more wisely and safely will he detect and correct any aberration or failure in Nature's "cell therapeutics."

The same principle may be applied to small-pox;—the red corpuscles, as before, being first infected through the lungs. Next, the liquor sanguinis is disturbed, and this, as it circulates in its course, is followed by wide-spread inflammation in the system. "Here the growth of pustules, and a beneficial change in the qualities of the blood, are simultaneous events." This is, essentially, a suppurative affection, the pustules flourishing and multiplying with the absorption of poison from the blood; a process, which, if checked by any cause, and a sudden flattening of the pustules follows, then, as all know, the life of the patient is usually the forfeit. The production of epithelial scales in scarlatina, and of pustules in variola, are both unusual productions of cell-growth; when, however, the blood is thus purified, the inflammatory fever subsides, the morbid cuticle exfoliates, and, in cases of no great severity, the patient recovers, with no more than simple alimentation and warmth in bed, to promote cell-action, in proportion to which action the blood recovers its purity.

To Asclepiades, the friend of Cicero, belongs the honor of first announcing the doctrine of the self-limitation of disease.* "The principal cure for a fever," says he, "is the disease itself." Latterly, the principle has again been brought forward, and developed, by Jacob Bigelow, as applicable, especially to scarlatina, measles, small-pox and the like, as an established and wise order of Nature. So admirably has he accomplished the work, that an eminent physician of Philadelphia says, he would rather have been the author of that treatise, on "self-limited diseases," than to have been the victor of Waterloo.

The light reflected on our subject by modern physiology and organic chemistry, though brilliant and useful, can receive but a passing notice. The former, by giving us a clear and obvious insight into the healthful operations of the economy, prepares us the better to understand the natural history of disease; while the latter, with its test-tubes, serves, like the microscope, to give precision to the nature of the efforts which the system makes in the elimination of disease. The products of true inflammation contain chlorides, phosphates, and albumen, and these disappear from the urine, (as in pneumonia,) for a time, to re-appear when the inflammation has subsided. Whence has this important natural fact been established, except through organic chem.

* Watson's "Medical Profession in ancient times," p. 101.

istry, its test-tubes, and the necessary re-agents? We cannot raise our arm, without producing, by the act, the death of a portion of muscular tissue; or receive a mental impression, or conceive an image, without a portion of the organic brain, descending to the condition of inorganic matter. How, without the aid of chemistry, could these facts be established, or we be able to show that Nature, in her prophylaxis, removes the debris, which otherwise would clog the system? Aitken, whose name has already been mentioned, and who occupies a foremost rank among medical progressionists, says: "The prognosis in severe typhoid fever, appears to be more favorable, in proportion to the free excretion of urea and uric acid, the excretion of these effete products being a most necessary point." Now, is not that excretion a process instituted by Nature, and yet, one somewhat under the control of Art? And how, without the aid which organic chemistry affords, may we know that such elimination occurs co-incidentally with, or just prior to, incipient recovery?

Let us also advert to what has been done in explaining the action of remedies in certain morbid affections, and, by analogy, in suggesting new ones. Thus, Hammond recommends a free use of bi-tart. potassa, as a prophylactic against scorbutus. This appears rational, since we are taught, by chemistry, that the remedy, *par excellence*, in this disease, viz: lime juice, is a citrate of potassa; that potatoes, so useful and grateful in this affection, abound in potash; and that nitrate potass., with vinegar, has been often found useful at sea. So lemon juice is beneficial in rheumatism, being a citrate of potassa, the alkali subserving a useful purpose in neutralizing the *materies morbi*, lactic acid; chemistry aiding us, first, in detecting the offending agent, and also in showing by what means we may best assist Nature in its decomposition, or elimination. In the same connection we may mention the sulphites, and hypo-sulphites. Their power in checking fermentation, out of the body, is well settled. Scarcely less certain is their efficacy in averting the destructive decomposition of albuminous food, with its accompaniment of gastric acid and gaseous eructations; or their power in pyæmia, septicæmia, and other catalytic diseases.

Encouraged by what has already been accomplished for medicine, by this branch of science, may we not turn to the chemist, with confident expectation, that, ere long, he may discover some antidote to the known, or, even the yet unknown, causes of disease? What may not Nature, thus supplemented by Art, then accomplish?

No phase of our subject is more interesting, than its relations to irregular systems of practice, the offshoots from the regular parent-

stock. Under these, Nature is still true to herself, and subservient to the best interests of man; and so long as she meets with no marked resistance, in unnecessary and over-active medication, she usually accomplishes her beneficent purpose. So long as the tendency in disease, generally, is to recovery, and not to death; so long as, in epidemics and other forms of disease, patients recover under directly opposite systems of treatment, or no treatment; so long as savages in their native wilds, and ship-wrecked mariners on desolate islands, and northern soldiers in confederate prison-pens, recover from serious illness without medication, why should we wonder, that men and women may do the same, when under hydropathic or homeopathic supervision, with every comfort, dietetic and hygienic, which wealth can furnish. This, however, is no place to discuss the merits of these systems; but, that we have no unreasonable prejudices, is shown by the fact, that from hydropathy we have borrowed, to some extent, its wet sheet pack, in typhoid fever and in scarlatina, and, from homeopathy, would cheerfully do as much, could we find anything really valuable, which we do not already possess. But we expect no such boon, and least of all, that it will come in the form of an infinitesimal. The following remark, by Reid, a Scottish professor of mental science, will make its own application. "When," says he, "we come to be instructed by philosophers, we must bring the light of *common sense* along with us, and by it, judge of the new light." A schism, it is said, has occurred in the ranks of this sect; one portion remaining faithful to the Hahnemanic ritual and infinitesimal doses, while a larger part, retaining only the doctrine, '*similia similibus*,' reject, as foolery, the system of the founder. 'Openly declaring, that no effect is produced by highly diluted doses of medicine, they use their *materia medica* in appreciable doses. Unless they prescribe in accordance with the rules of old-school experience, their system must resolve itself into treatment by regimen, by pseudo-specifics, or, by empiricism of the worst form.

Having hitherto directed attention, exclusively, to Nature in medicine, let it not be thought that we, designedly, depreciate the action and power of disease, or the importance of art. A few diseases have been mentioned, where the self-restorative power is obviously manifest; but even in these, and probably in every affection, acute and chronic, a judicious medical practitioner may be highly useful, though in all, by no means indispensable. "A good physician without drugs" is said to be "better than a poor one with them; but a good physician

with drugs, is better than either." Nor is Nature by any means powerless, in those diseases, not specifically selected for notice. The process of cure may be less obvious, but, in nearly every one, Nature, though tardy, is competent to the work. Art, working by means of drugs, contributes essentially toward recovery, or soothes and allays suffering, when it cannot remove its cause.

The term, conservatism, has, in medicine, a significance different from that which it obtains in politics. It supposes no special attachment for past theory or practice, but has reference to the physical well-being of the human organism, and the conservation of its forces. In this sense, I favor conservatism; and yet, although at that portion of life when medical scepticism is said, naturally, to implant itself, I feel a strong confidence in the therapeutic powers of certain articles of our *Materia Medica*, as do most of the conservatives of the day, and still cling to a prudent and limited use of calomel, as, at times, a remedy of vast power. Indeed, to it, in connection with a modicum of opium and antimony, I owe nearly three decades of professional life. This assertion is not rashly made, for I am aware how difficult it is to connect, positively, cause and effect in medicine. Nor am I ignorant, that, in its specific action, the article named is destructive of some of the important elements of the organism. But, restoration to health may be effected by medicine which removes obstruction—even at the cost of temporary depression; though, when truly indicated, who of us has not seen a combination of calomel and colocynt exhilarate, rather than depress, as its primary operation? Thus we may "augment destructive excretion, abnormally, to make room for constructive growth."* In lusty, gross, strumous children, of coarse fibre, how often do we find, that, after ringing the changes on less efficient remedies, calomel overcomes the difficulty at once. Not so, however, in a person of thin skin, clear, bright complexion, and fine, delicately cut features. In such it may do harm, by too active reduction of the vital powers. Doubtless it needs skill to use it,—and there was true wisdom in the order of a late Surgeon-General, excluding it, with antimony, from the medical supplies of our recent armies. If imperatively demanded, there were ways and means of obtaining the small amount requisite.

This limited and imperfect "appreciation" of mercury has been presented, for the purpose of showing, that a high respect for the recuperative powers of Nature, and a true conservatism, as regards the

* Chambers.

human economy, are far from being incompatible with occasional activity in the use of drugs, even of such as, in the view of some, are an opprobrium to our science. One extreme is just as reprehensible as its opposite. But it must be acknowledged, that wherever there is an enlightened medical profession, the amount of drugs now used is small, certainly, as compared with the practice thirty years since; and perhaps, in no disease, has the change of treatment been so great, as in pneumonia. Chambers gives a list of medicines which, formerly, a well-read, ambitious, and over-anxious practitioner, would prescribe, in a severe case of this affection, and which seems truly appalling. Let us, for a moment, contrast former practice, with the course now recommended by Bennett, Trousseau, Chambers, Aitken, Flint, and other lights of the profession, and which consists in flaxseed poultices* to the chest, the source of continuous warmth and moisture, "which are the great renovators of deficient vitality,"—liquor acet. ammo., spts. nit. ether, rest and alimentation, that sufficient materials for Nature's operations may be supplied. These articles, together with appropriate stimulants, and quinine in some cases, and, in a few others, leeches, or a moderate bleeding, and in fewer still, a guarded use of calomel and antimony, constitute the treatment, under which has occurred a most surprising reduction in the mortality of the disease. According to Bennett, it was, formerly, under a rigid antiphlogistic course, 1 death in 3 cases,—under a similar course, less actively pursued, it was 1 death in 5 cases,—while, under the practice detailed, it has been only 1 death in 26 cases. It is scarcely possible, that results so favorable can generally be expected, especially if both lungs are involved, and yet, who of us, with these statements emanating from such a source, will, if attacked with this disease, prefer the old régime, to a conservative course? But, says Prof. Meigs, "Physicians are God's missionaries; or chosen messengers of mercy." Moreover, are we not living on the remote confines of that golden era "when all men's good shall be every man's rule?"

But, while it is our design to strengthen confidence in Nature's powers, we would not forget, that therapeutics, or the art of curing, has ever been the end of our studies. Our inquiry still is, "Who will show us any good." To cure our patients pleasantly, safely, and rapidly, is our highest pride, our chief joy; and, to promote, indirectly, so good an end has this appeal been made. What are drugs, after

*Or oiled muslin jackets, covered with flannel, as at Bellevue Hospital.

all, but a whip applied to a horse, whose laggard pace needs quickening. The horse, and not the whip, must still do the work, and we are thrown back upon the original vitality of the organism. The question recurs as to the kind, and amount, of pharmaceutical stimulus requisite, or salutary, to the best good of the patient. I rejoice that we have not the inducements, in this country, to over-dosing, which prevail in England, where exists a class of medical men, called apothecaries, who receive nothing for advice, but whose pecuniary recompense depends entirely on the amount of medicine prescribed. This evil tendency has been fostered, if not produced, by former authors of books of "Practice;" but, happily, all our recent treatises, both English and American, deal but sparingly in drugs. Taken in connection with a common belief in their efficacy, and necessity, this attachment to them operates unfavorably in rural districts, where it seems incumbent on the medical attendant to furnish something obvious, and tangible, as the accompaniment of advice sought at so much trouble and expense. A grain of "*ignotum pro magifico*," diffused in two separate tumblers of water, is perfectly satisfactory to patients under a certain system of practice. Our nearest approach to this consists, in the use of palliatives, or a placebo,—as "medicine for the mind," the good of the patient being the ulterior object,—and the prescription, suggested and defended, by the Pauline wisdom of expediency.

But, far be it from us to admit the inference, that we are mere useless appendages in the sick-room. If not constantly administering medicines, are we not continually watchful of Nature's processes,—guarding the approach of disturbing influences, ready to treat complications, or, if need be, to "obviate the tendency to death?" Our intelligent patients demand the latest improvements in our profession, and we are busied in the exact researches which are furnished into the nature of the affection before us, by the numerous and excellent means of physical diagnosis now furnished, and, while they are amused and benefitted by such novelties as hypodermic medication, local anæsthetics, and the inhalation of nebulized fluids, we may even dissuade them from the use of drugs, which are unnecessary, but in favor of which they are prejudiced.

But some cautious member may inquire, "Will the agitation of this subject operate favorably on the interests of the profession?" Where truth and duty call, thither may we ever follow. The physicians of ancient Egypt have been compared to dark-lanterns; light enough within, but none for those traveling the same way. If the medical faculty, at the present day, possess any knowledge which can benefit

the public generally, we are happy to put it in their possession. Thus, the immortal Jenner, gathering up the scattered sparks which were emitted in his day, in relation to vaccination, as a preventive of small-pox, and, "encouraged," as he says, "by the hope of being useful to mankind," became the instrument of untold benefits. Who so active as physicians, in forestalling and preventing the advent of cholera in cities, by "house to house" visitation, and the practical application of preventive sanitary measures, or, in breaking up "fever-nests," or in preparing systems of hygiene, as preventive medicine? Self-interest stops not to inquire: "Am I not averting disease, which, if let alone, will tend to fill my coffers?"

This subject is urged upon the profession, because an unwarrantable over-estimate of Art and drugs, and an inadequate appreciation of Nature, exist in the community, which it is incumbent on us to correct and remove; and not as a direct means of securing the greatest measure of that prosperity which the world calls, "success in life." Larger pecuniary returns can, doubtless, be realized, in the days of this ignorance, by a free use of drugs in our practice, and a loud boasting of cures, which may be only fortunate recoveries. But there is pleasure in promulgating an abstract truth, like the one before us, so fraught with benefit to our patients, and aid and comfort under difficulties to ourselves. The world believe, that physicians have the power to cure the sick, in nearly all cases, but that, too often, they lack the requisite skill and knowledge. On the contrary, sad and numerous are the examples which might be named, of those, who, having spent their lives in successfully elucidating some important disease and its treatment, have themselves ultimately fallen beneath its power. Ere long, too, even if no violent disease suddenly break up our occupancy, our own lease of life, with the conceded privileges of its renewal, must expire, and we become victims to the incompetency of that Art, heaven-born though it be, which we have practiced so long, and loved so well.

ARTICLE XXIII.

THE VALUE OF MILK AS AN ARTICLE OF DIET
FOR THE SICK.

Being the Annual Dissertation read before the Convention, May 23, 1867.

BY ROBERT HUBBARD, M. D., OF BRIDGEPORT.

THE influence of the extreme antiphlogistic theories, that have determined the practice of a majority of the medical profession, in all diseases attended by inflammation or fever, until within a comparatively recent period, has not been more strikingly illustrated in their therapeutic, than in their dietetic management. The fear of exciting or aggravating a fibrile movement, has led, not only to the most depressing and disturbing medication, but also to an absurd denial to the sick of articles of food the most agreeable, and at the same time the most suitable for their enfeebled digestive organs, and to the substitution therefor of a diet repugnant to the taste even of the well.

I am not influenced to the consideration of this subject by a self-complacent belief that I am specially qualified, either by experience or study, to instruct the members of this society in regard to its merits, but from the embarrassment that I have experienced in practice from the prejudice of patients and their friends, and even not a few intelligent medical men, against the use of milk in any and all diseases attended with fever.

These popular and professional prejudices deter the timid and inexperienced in our ranks, and, might I not add, the selfish also, from assuming the responsibility of pursuing that course which their knowledge and judgment indicate. Therefore, as far as I am able, in the brief limits of this paper, I propose to consider these objections, theoretically, and adduce such clinical facts as tend to determine the true value of milk as an article of diet for the sick.

Milk is the only fluid furnished by nature containing all the elements of a perfect nutriment. "Food," (says Routh,) as is well known, to be capable of supporting life, must contain three substances in due proportion. 1. Plastic or nitrogenous matters, to nourish the fleshy parts of the body. 2. Calorifiant or combustible matter,

i. e., hydro-carbons, to supply the respiratory process, to keep up animal heat, and to provide fat for the body. 3d. Mineral matters, or salt, to supply the bones, and hold in chemical union, combination, and action, the solids and liquids of the body."

Now, when any one of these essentials of a proper aliment is altogether wanting or greatly deficient, a slow form of starvation is the result. In milk we find all these elements in beautiful combination. In casein we have the plastic or nitrogenous matters, and in fat and sugar, the calorifiant or combustible substances, while phosphate of lime, phosphate of magnesia, phosphate of iron, chloride of potassium, chloride of sodium and soda, constitute the essential mineral material.

A comparison of the constituent elements of milk with those of the human blood, shows a closer analogy than exists between the latter and any other known single aliment. Casein, the chief of the solid constituents of milk, differs little, if at all, from the albumen of the blood, while its various salts are common to the blood plasma and globules. How little effort, therefore, must be necessary on the part of the digestive organs, for the assimilation of this fluid!

Still, notwithstanding these seemingly plain teachings of nature and science, the hereditary prejudice against milk, as an article of food for the sick, prevails, to a great extent, in the minds of the people.

Convinced, early in my professional experience, of the groundlessness of these fears, I have, both in acute and chronic maladies, allowed milk, in reasonable quantities and at regular intervals, where any nourishment was allowable, when not contra-indicated by an idiosyncrasy of the patient. There are persons who cannot take milk, as there are others who cannot eat apples, even in health; and in such cases, of course, it would be folly to insist on its administration.

In acute diseases, as fevers and inflammations, attended, as they usually are, with thirst, it will not be prudent to permit its use, *ad libitum*, as such a license would surely lead to excessive indulgence; but the same precaution should be used as in regard to other articles of diet. The quantity should be regulated, and the interval for administration established, with as much care as in the case of any other kinds of treatment. The quantity tolerated may, at first, it is true, be small, but still, none the less important; and, should it not be well received by the stomach, it may be diluted with water, or used, deprived of its cream, in the form of skimmed milk.

We too often, I apprehend, in the urgency of professional duties, leave, what are deemed too lightly, the unimportant arrangements of

the sick-room, such as diet, ventilation, etc., altogether to the judgment of the friends and attendants, or with directions too vague and general for their guidance. How often have I heard the physician recalled, when about leaving his patient, and perhaps a very sick one too, by the inquiry, "Doctor, what shall I give him to eat," and the answer has been, "O; give him a little beef tea, milk, gruel, and the like." Now the term "beef tea," indicates any decoction of that agreeable article of food, from greasy water up to a good, reliable, concentrated beef essence. Directions thus loosely and indifferently given, serve only to confuse the friends, already, perhaps, rendered *dangerously conservative*, by their fears. No physician has half performed his duty, who has not directed *what* his patient shall eat, *what* he shall drink, and *how much* and *how often*, as definitely as he has arranged for the administration of his medicinal agents. But to return from this digression.

Since the publication of the "Prize essay on Cholera Infantum," by James Stewart, M. D., [Transactions of New York Academy of Medicine, Vol. 1. part vi., 1856,] I have discarded all other than animal food, (excepting occasionally a small quantity of certain kinds of fruit,) in the management of the diseases of infants, particularly those of the stomach and intestinal canal, and, as I think, with greatly improved results. The investigations of M. Guillot, quoted by Dr. Stewart, show, conclusively, that the digestive powers of infants are inadequate to assimilate starch, and that, uniformly, it was found, after death, as a jelly like substance, in some instances lining both the small and great intestines. Starch, as is well known, is converted into sugar, in the process of digestion in adults, while in children this change is accomplished imperfectly, or not at all. The result of this is, the presence of an excessive quantity of starch in the intestinal canal, producing irritation, and depriving the system of an adequate quantity of sugar, to aid in dissolving the carbonate and phosphate of lime. Hence these salts are not taken up in the blood, in sufficient quantities for the purposes of the economy, and a tendency to rickets is established. The influence of this deficiency of sugar on the respiratory processes, and the supply of animal heat, will be readily comprehended. The effects of such a diet are realized in impoverishment of the blood, softening of the bones, and general emaciation; and yet, it is no uncommon practice, even now,—and not unfrequently by the advice of medical men—as soon as the child is sick, to withdraw him from the breast or milk-bottle, and substitute for the milk, arrowroot, or some other farinaceous substance, as if, forsooth, an All

Wise Creator had made a grand mistake, when he provided for the sustenance of his creatures! In all forms of fever, that we encounter in this climate, and also in the typho-malarial fevers that prevailed in our army during the rebellion, I have found no food so grateful and beneficial to the patients as milk.

Dr. Gaidner [Lancet, Jan. 21, 1865] strongly urges the necessity of milk, in the place of wine, in the treatment of fever, and although I am not prepared to endorse his opinions fully, in respect to the use of stimulants, venture to express the opinion, that if we fed fever patients better, in the earlier stages of the disease, we should have less occasion for wine, brandy, and whiskey, in the later. He says: "You must feed your patients, and, you must feed them chiefly on milk. Milk, or butter-milk, is with me the staple food in typhus; and I will even say, that I know of no other food, that can be depended on. I believe infinite mischief has been done, in typhus fever, and in all fevers, by giving wine, and withholding or not giving milk. Under a false theory of administering alcoholic food, it has resulted, not only that natural and genuine food has been withheld, but that the remaining small amount of appetite for such food has been obliterated, and not unfrequently even at an early stage of the disease. The patient has been practically disabled from taking any proper nourishment at all. I know, unhappily, as a fact, that not only doctors, but nurses and patients and patients' friends, are readily brought under the influence of this fatal delusion, that alcoholic liquor can, in fevers, take the place of natural food. But it is none the less a fatal delusion, which I warn you solemnly against. I have been very careful, at least for fifteen years past, to avoid this error, and I believe that any success I may have had in managing fever, has been more due to this than to any other cause."

In the "Archives Generale de Medicine," for November and December, 1866, Dr. Philip Karell, Physician to the Emperor of Russia, has an elaborate and able article on the *milk cure*, from which I translate and condense the following testimony to its value: He says, "In my own practice, after trying unsuccessfully all sorts of remedies, in numerous chronic and intractable diseases, I succeeded finally in subjecting the alimentary canal,—the seat of so many diseases,—entirely to my control. I accomplished this by giving milk according to a new method." His method is to give milk alone, forbidding all other kinds of nutriment, beginning cautiously and giving a small quantity, from two to six ounces, three or four times a day, at

regular intervals, and of a temperature to suit the patient's taste. It should be drank slowly, in order to insure a due admixture of saliva ; and if the fæces become gradually harder, indicating improved digestion, the dose may be cautiously increased, until two quarts are taken in a day. He has found this treatment useful in dropsies of all kinds, asthma depending on emphysema, and pulmonary catarrh ; in severe neuralgia, when originating from derangements of the intestinal canal ; in simple hypertrophy, and fatty degeneration of the liver ; and in diseases generally characterized by faulty nutrition, caused by obscure sub-acute inflammation of the stomach or intestinal canal, succeeded by disturbance of the nervous centres ; in all these cases, he considers milk the best and most reliable of remedies. Even in dropsies, depending on organic lesions, sensible amelioration may be anticipated.

Although a nutritive cure, yet we must not consider it as limited to the treatment of diseases dependent on perverted nutrition. He also states that he has been called, during the last fifteen years, to numerous chronic affections of various kinds, that have baffled medication, but recovered under the methodical administration of milk.

Dr. Behm, quoted by Dr. Carell, reports that in pernicious typhoid fever, during the war in the East, he was only successful after he began the milk treatment.

Dr. Inosémtzeff, of Moscow, states that he has employed the milk treatment, with the most encouraging results. The author, among numerous cases of interest, gives one of chronic diarrhea, with vomiting, of four months duration, reputed to be a case of gastro enteritis, attended by extreme emaciation, and fatty degeneration of the liver. She had also had several internal hemorrhages. He suggested the propriety of the milk cure, and the attendants informed him that it had already been tried. She commenced, however, with four table spoon-fulls three times a day, with no other treatment. The vomiting ceased at once ; the diarrhea terminated on the third day ; and she continued gradually to improve, until, at the end of the second week, she could digest two bottles of milk a day.

Milk is especially beneficial in the treatment of phthisis pulmonalis, and other tubercular affections. In the hospitals in Germany it is the practice to treat this class of diseases by the administration of cod-liver oil and other restoratives, in the winter, and to send the sufferers to the mountains in the summer for the milk cure,—discontinuing the cod-liver oil during the hot season.

German practitioners also recommended highly the use of buttermilk in the treatment of diseases attended with inaction of the liver and kidneys and constipation. My own observation of its influence in such cases, although limited, have impressed me favorably as to its powers. I have advised it in a large number of cases of habitual constipation, and in none of them has it failed to increase peristaltic motion, and in most it has superseded the necessity of any other laxative.

ARTICLE XXIII.

HYGIENIC TEACHINGS OF THE LATE WAR.

Read before the New Haven County meeting, October, 1866.

BY F. L. DIBBLE, M. D., LATE SURGEON 6TH CONN. VOLS.

Soon after the breaking out of hostilities, in 1861, when it became apparent that large bodies of men would be required for active field operations, many minds, throughout the country, were earnestly exercised respecting the sanitary condition of the gathering host. The daily newspapers were filled with advice to those leaving for the seat of war, a multitude of pamphlets were put forth, and some rather pretentious books. The greater part of this literature was altogether worthless, not to say ridiculous.

One communication appeared from an old soldier, who claimed to have shared in the toils and dangers of the last war with Great Britain, recommending the soldiers to furnish themselves with two thin blankets, instead of one heavy, and stitch between the two, sheets of paper; since paper was an excellent non-conductor of heat, this simple expedient would greatly assist in retaining the warmth of the body. It did not take long to discover that a sandwich of this kind being just as good a non-conductor of water as of heat, was not exactly the thing for field service, so the representations of this ancient warrior were not worthy of consideration.

Others labored to show how the soldiers could keep cool, and "havelocks" were sent to the army by the hundred thousands. So far from fulfilling the purpose for which they were intended, these actually made the wearer more uncomfortable, by confining the heated air between their folds and the skin. Beyond supplying a covering for the head on cold frosty nights, they were not worth their transportation. The new bonnet was adopted by whole regiments, but was quickly thrown away after the first day's march beneath a summer sun.

All sorts of things were said to the soldiers about prudence in eating when very hungry, and above all, prudence in drinking when very thirsty, or when the body was heated by unusual exercise. It is extremely doubtful if there was one man of the millions who were sent

to the war, who ever heeded these admonitions. On the contrary, if the soldiers ever gorged themselves with food, it was when they were tired and famished, and the hotter and thirstier they were, the larger the draught of water they took. Nor do I remember to have ever met with a single case of disease, or indisposition even, whose origin could be traced to the excessive ingestion of food and drink, under such circumstances, provided the character of the aliment was not pernicious. All this talk, however, was not without its good effects; it showed that the public mind was awakened to the importance of sanitary precaution, and occasionally a valuable suggestion found the light, which essentially aided both officers and men in the preservation of their health.

In all previous wars, of which we had any statistical information, the mortality from disease was shown to be frightfully disproportionate to the loss of life in battle. Nobody who thought about it at all, expected that armies of men could march and fight, and watch and dig, by night and by day, always with inadequate shelter, and frequently with none, from storm and sun, with food deficient in quantity and sometimes defective in quality, without a large number succumbing to these influences. The question was how to reduce this number to the minimum. It was alleged that those diseases which had invariably proved the scourge of armies in the field, were precisely those which were preventible and controllable, to a certain extent, by enlightened sanitary regulations. These were Typhus and Typhoid Fevers, Diarrhoea, and Dysentery, all of those, in fact, which are recognized as zymotic diseases; maladies whose spread, if not whose first cause, is dependent in great measure on the crowding together of human beings.

At the outbreak of the war there was an acknowledged poverty of literature pertaining to Hygiene, especially to the Hygiene of armies in the field. It is interesting to observe, that the great Jewish Lawgiver was not unmindful of the health of his troops. We read his comprehensive General Order on this subject, in Deut. xxiii, 9 to 13. "When the host goeth forth against thine enemies, then keep thee from every wicked thing. If there be among you any man that is not clean by reason of uncleanness that chanceth him by night, then shall he go abroad out of the camp, he shall not come within the camp; but it shall be when evening cometh on, he shall wash himself with water; and when the sun is down, he shall come into the camp again. Thou shalt have a place also without the camp, whither thou shalt go forth abroad; and thou shalt have a paddle upon thy weapon; and it

shall be, when thou wilt ease thyself abroad, thou shalt dig therewith, and shalt turn back and cover that which cometh from thee : For the Lord thy God walketh in the midst of the camp to deliver thee * * * therefore shall thy camp be holy, that he see no unclean thing in thee and turn away from thee."

A hundred and twenty-five years ago, Sir John Pringle issued his work on Diseases of the Army, wherein are carefully estimated the baleful influences in the production of diseases, of impure air and water, improper food and inappropriate clothing, exhausting labor for a season, followed by an abstinence from all toil ; in short, all of those circumstances incident to a soldier's life. His book is not unworthy a place in the most modern collections.

Dr. Rush has given us a few observations upon the diseases which occurred in the army during the Revolutionary War. It is instructive to read his opinion of army hospitals seventy-five years ago :— "The principal diseases in the hospitals were the Typhus Gravior and Mitior of Dr. Cullen. Men who came into the hospitals with Pleurisy and Rheumatism, soon lost the types of their original diseases, and suffered or died by the above mentioned fevers. Hospitals are the sinks of human life in an army, and should war continue to be the absurd and unchristian mode of settling national disputes, it is to be hoped that the progress of science will so far mitigate one of its greatest calamities, as to produce an abolition of hospitals for acute diseases." Assuredly, the roomy, well ventilated hospitals, established during the late war, do not merit such wholesale condemnation.

A half century ago, Mr. Hennen devoted a few pages in his work on Military Surgery, to the consideration of Military Hospitals. He decided that 800 cubic feet of air was the least which any patient should be supplied with. Very little is said on this subject by the most popular authors on Military Surgery who flourished during the wars of the first Napoleon. In Baron Larrey's numerous volumes, there is hardly an allusion to the Hygienic management of troops in the field or of soldiers in a military hospital. It is remarkable that one so eminent in the department of Military Surgery as Mr. Guthrie, should have omitted to place among the terse apothegms of his Commentaries anything relating to so important a matter as Hygiene. Turning to works on the practice of medicine, while volumes are granted to the study of pathology, and the most enthusiastic devotion is displayed in elucidating occult conditions of diseased organs very little, and frequently nothing at all, is said about the application of Hygienic means to the prevention or treatment of disease.

In the older works on *Materia Medica*, there is no dearth of matter upon the Therapeutic value of drugs, but hardly a word is given to the proper mode of making use, either in sickness or in health, of the air we breathe, or the sunlight which is shed about us, of the food which nourishes, or the clothing which protects us. Later authors, however, do not disdain to give us columns on Light, Heat and Electricity.

But it was the late war which has impressed, not alone the Medical Profession, with the value in the treatment and prevention of disease, of those vast natural forces which are silently at work all around us. In the early part of the war, buildings of some kind were sought for as hospitals. Churches, hotels, and sometimes dwelling-houses were used. Experience proved that barns were better than hotels or houses, and that tents were better than barns; and it came very near being demonstrated that no shelter at all was the best in the warm months, unless it were a simple tent-fly, to shield the patient from the direct rays of the sun. The great, nay, the indispensable requirement in the treatment of sick and wounded soldiers, was pure atmospheric air; and just in proportion as this condition was neglected, other things being equal, was the mortality from disease and wounds.

It is estimated that each adult person inhales 360 cubic feet of air in the 24 hours. The function of respiration seems analogous to that of nutrition; atmospheric air, which is composed of material elements, is drawn into the lungs at the rate of 360 cubic inches per minute; it there undergoes certain changes; that part which is necessary to renew and revivify the wasting body, is selected for absorption by the blood vessels, and by them transmitted to the remotest cells in the entire system; that which is useless or noxious is rejected. The two functions have the same end in view, namely, the renewal and building up of the tissues.

Dr. Rush says, in the observations before quoted from, "The army was always more sickly when it lay in tents, than when it lay in the open air. It was likewise more healthy when it was kept in motion than when it lay in an encampment." One of the most noticeable features of the late war, was the health of the army after breaking up a permanent camp and taking the field for active operations, with nothing but the shelter-tent for a protection. The ration might be reduced and its nutritive character impaired, the labor might be more severe and the vigilance constant and more exhausting, yet, in spite of all these untoward circumstances, the health of the men would be sustained to a surprising degree.

It is true, that these influences, incessantly at work during a protracted campaign, would diminish the vigor of the soldiers, and maladies would follow; but, as a general thing, only those which were clearly traceable to exhaustion and an imperfect nutrition. Is it unreasonable to believe that the plentiful and unrestrained supply of pure atmospheric air, which the army enjoyed, was the great compensating power in the presence of these hinderances to health? Almost every one can call to mind some individual, who entered the army a puny, sickly boy, or man, whose form and countenance bespoke, unmistakeably, the tubercular diathesis, and who uniformly encountered the predictions of an earlier grave by reason of the vicissitudes of a soldier's life. Those who are best able to form an opinion will uphold the assertion, that this class, as a rule, was not by any means the first to yield to the harsh and unrelaxing duties of the service. On the contrary, many of these cases, under the influence of pure atmospheric air and exercise, expanded into admirable physical specimens of manhood.

Enough has been written on contagion and infection, to confuse the best regulated mind; the animalcular theory, the gaseous, the vegetable parasite, and more recently the corpuscular theory, & I may so call it, all have their votaries; but it is notable that authors agree positively on one point, namely, that pure air dilutes, dispels, or destroys in some way, the virulence of the contagious principle, and that there is no disinfectant, no deodorizer, which can be compared to it in efficiency.

Another thing which the late war taught us, was the value of sunlight. When the army first took the field, a grove frequently beguiled a regiment into an encampment beneath its shade; a cluster of live-oak seemed the coolest and most inviting. It was soon manifest, that beneath the shadow of these trees lurked a deadly poison; in these localities the disease which was named Typho-malarial fever was evoked to an alarming extent; and not many months elapsed ere these alluring groves were carefully shunned. Unless shade-trees could be found of some species of the pine, whose lofty growth and needle-like foliage were insufficient to obstruct the sun's rays, they were avoided altogether, and an open field was chosen. It was allowable to place boughs directly over the tents, to protect them from the vertical rays of the sun; anything more than this came to be viewed as a departure from the plain principles of Hygiene.

Let us consider for a moment the nature of sunlight, its capability of being decomposed itself, and of decomposing other bodies and

forming new combinations, both inorganic and organic. White light, resolved into its primitive parts, discloses luminous rays, heat producing rays and rays which possess chemical power; each of these has early if not quite a separate function. Inorganic bodies in particular, seem to be acted on by the chemical rays. Almost all of the salts of silver are decomposed by solar light, likewise nitric acid and some other of the metallic salts. A mixture of chlorine and hydrogen will remain in a dark place a long time, as two distinct gases; expose them for a few moments to the light of the sun, and a combination ensues, the result being Hydrochloric acid.

The action of light on plants is far more interesting; these do not cease to grow if deprived of light, but they become blanched, and do not acquire a compact texture; they go on to absorb moisture, but none of those chemical changes take place whereby carbon is fixed, and the properties peculiar to each vegetable are evolved. They are turgid with fluid, oedematous and chlorotic. Uncover them to the sun, and immediately chemical action follows, there is a deposition of carbon and an evolution of oxygen, varied colors are brought to view, and special products are unfolded. Experiments have shown that the most active decomposition of carbonic acid takes place in the luminous rays; the heat-producing and chemical rays aiding very little in the execution of this particular function, so that, it is light, not heat nor chemical power, which is the main source of these wonderful transmutations in the growth of plants.*

Plants may be supplied with an abundance of food, but without the stimulus of solar light it cannot be assimilated to their uses.

Light seems in many respects to have the same relation to plants that the atmosphere has to air-breathing animals. The influence of light on animals is well established. Experiments are recorded which show that the development of certain of the Batrachia into air-breathing animals, can be arrested by a seclusion from the light. Animals can be kept in the dark on a smaller allowance of food than if kept in the light, but a superabundance of adipose matter is formed, the firmer tissues of the body lose their tone, and some of the most important glandular organs take on a loathsome disease. If the human subject is exposed to the sun's rays, we all know how the hue of the skin is changed by the development of pigment in the cells of the *rete mucosum*; on the other hand, if separated from the light, it

* Carpenter. Elements of Physiology.

becomes deficient in color. The Therapeutical value of light seems to have been little studied by authors.

It is a well attested fact that there are certain portions of our globe so beset with what is called malaria,—especially after nightfall,—that none but the most thoroughly acclimated can trust themselves abroad; but the rising sun dissipates the subtle poison, and strangers may then go forth with impunity. Dr. Carpenter says: "It has been stated by Sir A. Wylie (who was long at the head of the Medical staff in the Russian army) that the cases of disease on the dark side of an extensive barrack in St. Petersburg, have been uniformly, for many years, in the proportion of three to one to those on the side exposed to strong light. And in one of the London hospitals, with a long range of frontage looking nearly due north and south, it has been observed that residence in the south wards is much more conducive to the welfare of the patients, than in those on the north side of the building."

There are some of the diseases of the appendages of the eye—Chronic Inflammations—which are aggravated, and whose duration is prolonged by an absence of sunlight; in many cases, particularly of Tarsal Ophthalmia, the light seems to act as a gentle and salutary stimulant.

I am fully persuaded that nearly all of the diseases which are considered *chronic*, particularly those wherein is manifested an inordinate nervous sensibility, can be benefitted by a free exposure to solar light, if in no other way than by inducing a cheerful habit of mind. It not infrequently happens that a removal to a distance of only a few miles from a large city, brings about speedy changes in the condition of patients reduced by continued diseases, and these alterations cannot be wholly attributable to change of scene, but in great measure to the power of those invisible and delicate agents, pure air and the light of the sun. There is a prevalent fault in the attendants of the Lying-in-chamber in respect to the exclusion of light as well as air. The error seems to have taken its rise from the idea that the eyes of the new-born infant are too sensitive for the reception of light. But who ever saw the newly-born child open wide its eyes? These organs are always partially closed—not from any involuntary action of the orbicularis to protect the eye—but because the Levator Palpebrae, like the other muscles of the body, has not yet fully attained its contractible power. Besides, for the first few days after birth, according to Dr. Tanner, the child gives but little indication of visual

sensation. It would be quite as reasonable to preclude the admission of atmospheric air to the child, lest this might irritate the delicate skin and mucous membrane.* As the late war progressed, it came to be considered necessary—when the site of a hospital could be elected—to choose a position for its establishment which would permit a full blaze of sunlight during some portion of the day, on all parts of the exterior of each building.

Valuable deductions can be made from a knowledge of the way the army was subsisted.

It had not been in the field many weeks, when an order was issued from the War Department which increased materially the army ration in the amount of vegetable and farinaceous food. It was always intended that the food should be of a superior quality, and the quantity was larger than was necessary to supply any ordinary waste of the body. Unfortunately, in active campaigning it was nearly always found that the transportation was incompetent to carry rations for the army to the extent allowed by law, and hard bread, salt pork, and bacon, with coffee and sugar, formed the principal articles of diet. Even with this allowance, if the campaign was short, the troops would maintain unbroken health, but if it was long delayed, they would show signs of exhaustion, and those diseases would predominate which indicated a debility of the digestive organs, the scorbutic cachexia and diarrhœa in particular; and this confinement to these articles was the great source of chronic diarrhœa. No matter what view may be taken of the pathology of this disease, the fact is conspicuous, that a careful attention to diet, with only moderate labor, would most certainly prevent the access of the disorder. It is endemic in that part of our country which was known as the Department of the South during the war.

It was found that those regiments which were located near to the base of supplies, and whose labor was limited to simple drilling and the ordinary guard duty of a camp, and which could be furnished with the full army ration, were almost entirely exempt from the disease; on the other hand, those commands which were stationed more remote

* La lumière, fluide nouveau pour l'œil, comme l'air est nouveau pour l'organe cutané, et pour le membrane pituitaire, produit alors sur cet organe, une vive excitation, qui concourt à l'excitation généralement déterminée dans tout le corps, excitation qui met en jeu diverses fonctions et active les autres.—Bichat *Anatomic Descriptive*.

from the base, and which were called on for hard fighting and hard digging, with severe picket duty, the ration diminished to its lowest possible amount, suffered severely from this malady.

Perhaps the most important sanitary order which was ever issued, was one which was published in the early part of 1863.

It applied to every detachment in the service, and demanded that each meal of the day should be carefully inspected before it was partaken of by the soldiers, by two officers, one of whom should be a medical officer. A faithful compliance with the provisions of this order, secured to the men at all times, except when in active movement, cleanly prepared and wholesome food.

In clothing the troops, the end in view was to protect them from wet and cold, and at the same time to leave the organs of the body unimpeded in their natural motions. The material for the clothing was always wool, or rather was supposed to be such. Dr. Rush says, in the observations above alluded to, that "those officers and soldiers who wore flannel shirts and waistcoats were less liable to disease than those who did not take this precaution." Woolen shirts and drawers were a part of the soldier's equipment during the late war. When we consider the marching which was accomplished, it must be admitted, that there was a remarkable immunity from those disorders of the integumentary system, known as corns and bunions, and ingrowing toe-nails. This was owing doubtless to the capacious, broad-soled army shoe worn by the men, which consulted comfort rather than symmetrical proportions.

It is impossible to do justice to the merits of this subject in a single short essay; but this rapid and necessarily superficial statement of the Hygiene of the late war, leads us to sum up, in as few words as possible, the practical value of its teachings and their application to civil life. It is calculated by those best able to compare the facts which have been collected, that the ratio of deaths to the entire number of troops employed, was only about one-half what it was in the Mexican War, and only about one-fourth what the allies suffered in the Crimea.

Further, there were over a million of patients treated in the General Hospitals during the four years of the war, and the mortality, including both that from disease and that from wounds, was but one death to twelve patients, or about eight per cent.*

* Circular No. 6, Surg. General's Office.

The question arises, to what we shall ascribe the startling difference between the medical results of the late war and those of all other contests which preceded it, of which we have any information.

It is not because drugs were more intelligently administered, though this may have had something to do with it; but it is susceptible of proof that it is because our army was the best fed, the best clothed, and the best cared for in every respect, of any which ever took the field against an enemy.

The Government was quick to adopt improvements which tended to protect the health of the soldiers, or to accelerate their recovery, if sick or wounded; and it is evidence of our advancement in civilization, that economical reasons did but *share* the motives of those in authority; in the main, the Government was prompted to action by the higher incentives of justice and benevolence.

Before the war, Hygienic means in the treatment of the sick, were hardly admitted to be coördinate with the dispensation of medicine; air, light, cleanliness, temperature, food and clothing, were less talked about than the various and sometimes antagonistic theories respecting the action of drugs. The occurrences of the last five years lead us to conclude that the time may come, when the exhibition of medicine will be held to be subordinate, at least in many diseases, to the observance of Hygienic rules.

How ineffective is frequently the treatment of fever, or, indeed, of any of the acute diseases, under unfavorable hygienic influences; and how often does a patient suddenly improve by a simple transfer to propitious surroundings? How utterly hopeless becomes a case of Pulmonary Phthisis in its first stages, even, under any plan of treatment, if deprived of pure air, and light, with deficient or improper exercise, unsuitable food and clothing? Unpromising at best, we know it to be, but not altogether desperate, if the patient can follow the plain principles of Hygiene.

It was the late Surgeon General who advanced the proposition, that the time may arrive, when man will so stand in harmonious relation to circumstances around him, that by patient investigation he will discover those immutable laws of his being, and by experience will be led so obediently to regard them, as to render the taking of medicine, either for the cure or prophylaxis of disease, entirely unnecessary.

There have been hopeful men, and the class is not yet extinct, whose faith in the ultimate perfectibility of the human race is so tenacious, that they look forward to the era when man by education

and reflection will so far comport himself in harmony with, and in subjection to, his moral nature, as to render superfluous the enactment of statutes to prevent infractions of moral law.

It would be futile to waste time in discussing whether these medical or spiritual milleniums will ever come; it should content us to know that our duty is to labor earnestly to promote every branch of our profession, and especially is it our duty not to neglect the department of Hygiene, wherein the harvest truly is plenteous but the laborers are few.



BIOGRAPHICAL NOTICE OF
PROF. ELI IVES, M. D.

BY HENRY BRONSON, M. D.

It is a beautiful custom, which this Society has adopted, of publishing with its proceedings appropriate biographical sketches of its deceased members. In no other way can we so well preserve the memory of our departed friends, and hand down to future generations the knowledge of what they were and what they did. There is an eminent fitness in our thus honoring those among us whose rare endowments and distinguished success, as physicians, have placed them in the front rank of the profession.

In an old house, still standing on the northeasterly side of Broadway, next east of the brick house owned and occupied by the late Geo. F. H. Read, in New Haven, February 7th, 1778,* ELI IVES was born. His father, a highly respectable physician of large practice, bore the name of Levi—his mother that of Lydia Angur. Eli was their third son, and fourth child. In 1795 he entered Yale College, and graduated in 1799. For a period of fifteen months,† he was Rector of the Hopkins Grammar School in New Haven. While still teaching, he pursued the study of Medicine with his father, and with Dr. Eneas Monson, Sen., the last a celebrated physician and wit, whose attainments in the science of that day, particularly in Mineralogy, Chemistry and Botany, were important, and whose knowledge of indigenous *Materia Medica* was, perhaps, unsurpassed. That his education might be more complete, he visited Philadelphia, and attended lectures in the most eminent medical school in America, where Rush, Wistar and

* This date is taken from the family record, kept by the father. Dr. Dutton's Funeral Address and the American Annual Cyclopaedia, give a later date, viz. February 7th, 1779. According to the North Church record, he was baptized February 21st, 1779.

† Dr. Dutton and the Cyclopaedia above named say that he was Rector for the two years after his graduation; but according to the record of the Grammar School he was appointed to the office April 9th, 1799, (I think this is the correct reading,) while his successor, Mr. Bartlett, was chosen July 1st, 1800, (not 1801, as in Rev. L. W. Bacon's "Historical Discourse," &c.)

Barton taught with distinguished success. At a subsequent period, (about 1805,) he left his practice, and again became a pupil in the Philadelphia school.

As evidence of his literary acquirements, it is mentioned by Dr. Dutton, in his Funeral Address, that he was offered the place of Tutor in Yale College. Another proof of scholarship may be found in the fact that he delivered, by appointment, the Phi Beta Kappa Oration in 1802.

On his first return from Philadelphia, probably early in 1802, Dr. Ives made known to his father his intention of commencing practice in some country town. The latter thought that he (the son) had better go into business with him, or at least remain three months as an experiment. The suggestion of the parent was adopted. I conclude, for several reasons, that Dr. Ives commenced practice at the period indicated, notwithstanding Dr. Dutton gives 1801 as the time. In the record book of the New Haven County Meetings of the Connecticut Medical Society, under date of May 4th, 1802, I find the following entry:—"Dr. Eli Ives, having been examined and approved by the Examining Committee, [of the Connecticut Medical Society, for license,] was admitted a member of the Society."

On leaving his father, "young Dr. Ives," as he was then called, opened an office in a house which then stood on the south side of Chapel street, opposite the South College, New Haven. After his marriage to Miss Maria Beers, daughter of Dea. Nathan Beers, September 17th, 1805, he removed to a building which stood on the same side of the street, just above High street. At a later period, he lived in a brick house, (now four, then three stories high,) which stands just east of the building first occupied, and which now adjoins the home lot of Mr. Gaius F. Warner. While residing here, more than fifty years ago, he bought a large lot on the east side of Temple street, north of Wall, (then a new part of the city,) and about 1814 built a house on the corner, (southwest corner of the square,) where he afterwards lived and died.

Devoting himself to his profession with singleness of purpose and tireless energy, he soon obtained a very large and lucrative practice. While still living in Chapel street, his business in town and country was so pressing that he found it convenient to keep three horses; and, in seasons of unusual sickness, hardly had time for the necessary sleep and meals. Though of a slender constitution, and always delicate in health, he bore up under his accumulated labors in a way that astonished his friends.

In 1806, Dr. Ives was elected one of the Fellows of the Connecticut Medical Society, and was re-elected for the eight succeeding years. He was also the Secretary in 1810, 1811 and 1812, and a member of the Examining Committee for New Haven County, from 1805 to 1812, inclusive. In the first number of "Communications," published in 1810 by vote of the Convention, will be found three short papers (cases) from his pen, one, a "Case of Retroverted Uterus," being anonymous. In October, 1811, the honorary degree of M. D. was conferred on him by the Society, in accordance with its charter.

In the proceedings of the Convention, (its action being prompted by a letter received from a Committee of Yale College,) which began in 1807 and terminated in 1810 in the adoption by the parties in interest of "Articles of Union," and resulted in establishing the Medical Institution of Yale College, Dr. Ives bore an influential part. He was on all the committees of conference, and seems, indeed, to have been at the head of the movement, so far as the Medical Society was concerned.

These facts, not in themselves very important, point unmistakably to the high position which Dr. Ives, then just entering upon professional life, occupied among his brethren. When, in addition to these indications of confidence and respect, he came to be chosen, by the joint action of the Connecticut Medical Society and the Corporation of Yale College, to fill a most responsible place in the new-born Medical Institution, we have the best evidence of his excellent reputation and rare endowments. It was then a great thing to be a professor. There were but four medical colleges in the country; these were in Philadelphia, New York, Boston, and Hanover (New Hampshire); and the man who (on the ground of merit) was selected to give a course of public lectures, was considered high up on the professional ladder, if not on its topmost round. Though Dr. Eneas Monson, sen., was made an associate professor in the chair of *Materia Medica*, on account, probably, of the eclat which his well known name would give to the College, little aid could have been expected from one then almost eighty years old.

The school was opened in November, 1813, with an attendance of thirty-three pupils.* "Commons" were established in the basement of the college building, while the spare rooms above were occupied by the students. The class was assembled morning and evening for prayers, the professors officiating, and the rigid rules governing the

* Dr. Knight's Introductory Lecture, 1853.

academical department were enforced. For the benefit of his classes, public and private, and for the advancement of science, Dr. Ives, at his own expense, undertook to convert the ample grounds adjoining the College on the east into a botanical garden, built a hot house, and introduced a variety of native and foreign plants, shrubs and trees, mostly of a medicinal character; but the time and expense required proved too burdensome, and the "garden," after a somewhat protracted "struggle for life," perished from neglect.

I attended lectures in New Haven in 1824-5, and again in 1826-7. Dr. Nathan Smith, then a little over sixty years of age, (he seemed very old,) was Professor of Surgery and "Theory and Practice." He was in some respects an extraordinary man, self-made, as the phrase is, (all men who are well made are self-made,) original in his views and methods, inexhaustible in resources, sound in judgment, and overflowing with strong common sense. His most remarkable feature was a nose, turned to one side, of uncommon longitudinal proportions, which, during lectures, he plied almost incessantly with great pinches of snuff, much of which lodged in the folds of his waistcoat. His neck was short, his head bowed, his voice smothered in his throat, his surgical demonstrations slovenly, the matter of his discourse often disjointed, but he gave excellent practical instruction. His words were treasured up, and are not yet forgotten by those who heard them. He was respected the more for the admirable little treatise on "Typhus Fever," which he had, at that time, just published.

Dr. Knight, then in his early prime, lectured on Anatomy, Physiology and Midwifery. I see him now as he appeared more than forty years ago—a square, compactly built, well-dressed man in a blue suit with gilt brass buttons and white cravat. He holds in his hand an anatomical preparation, or rests the tips of his fingers on the dissecting table. His posture may be a little stiff, his expression slightly severe, but the massive head, the dark, deep-set, piercing eyes and beetling brows, the dignified bearing, and downright emphatic manner, make a profound impression. His voice is good, his enunciation distinct. He is clear, concise, methodical and exact; begins at the beginning, goes straight to the end, and stops when he has finished—a rare merit. He is not fluent, but the desired words are forthcoming in good time, every one of which is significant. There is nothing redundant, nothing deficient. His expressions are selected with skill, but his taste is not finical. Though appearing to look intently on the specimen in hand, he sees everything. Is a disturb-

ance made on the back seat? The transgressor is instantly silenced by an electric shot from beneath those frowning brows.

Dr. Knight was not an orator, not an eloquent man; had little enthusiasm and no imagination; declined all attempts at wit; made only the simplest gestures, and these mostly with the head; used no ornament or clap-trap; and yet he contrived by simple, truthful description, and earnest, matchless statement, to rivet the attention of all, even when his subject was the dryest. But he is gone, and we shall not soon see his like.

Dr. Ives, then nearly fifty, (I was at one time his private pupil,) lectured on *Materia Medica*, Botany and the Diseases of Children. He was tall and spare, of a weak organization, with a pleasant countenance and mild blue eye, unceremonious and unpretending, familiar and agreeable in manners, and plain in dress. He had a high, somewhat retreating forehead, which was heavily developed above and around the eyes, in the region of Gall's perceptive faculties. His appearance as he sat in his blue cloak with scarlet facing, reading his lecture from loose papers a little dingy with age, his voice rusty and feeble, his elocution hesitating and difficult, was not prepossessing. The sentences seemed sometimes broken, and the thought not always continuous. In many important particulars, he was the reverse of Dr. Knight. In theory, he adopted Murray's classification of remedies, but did not allow it to interfere with his freedom of movement. In truth, he had little system or method, especially in the subdivisions of his subject; but allowed his thoughts to travel up and down as humor or the occasion suggested. He would begin anywhere, and ramble all over the field, gathering whatever was most valuable that came in his way. Frequently in these wanderings, he invaded the neighboring province of Theory and Practice—often, indeed, seemed about to take up his abode there; but he always came back, well laden with interesting items, and nobody complained. At short intervals, unmindful of his notes, he would lean forward, rest his arms on the desk, and after a few preparatory hems, state a case, or relate an anecdote, in way of illustration or recreation, alluding, perhaps, to what Dr. Monson Sen., Dr. Gilbert, or Dr. Potter (of Wallingford) had said or done. His pleasantries were heralded by a certain twinkling of the eyes, and several extra hems which the mirth-loving of the class were quick to interpret. He was not a good story-teller, but his stories were piquant and amusing, and all enjoyed them, including the narrator. That the Doctor could appreciate wit and point, and had a keen relish for the humorous, was apparent enough.

Notwithstanding his short-comings, Dr. Ives had many valuable qualities as an instructor, and gave an excellent practical course. Had he been as eloquent, he would have been a greater man than Dr. Rush. Fettered by no theory, indulging in no speculation, but depending mainly on his own abundant resources, he communicated to the class, in his peculiar and familiar way, the results of the closest observation, and the richest experience—gave them the knowledge most needed at the bedside of sickness. He had treasured up in his capacious memory an immense store of facts gathered during many years of discriminating practice and thoughtful study, which he poured forth in unstinted measure. Every one who heard him, whether novice or veteran physician, was impressed with the great value of his teachings.

Dr. Ives knew more of our indigenous *Materia Medica*, doubtless, than any man who lived as early. He began the study when still a pupil, and pursued it uninterruptedly till late in life, and till the surrounding country had been thoroughly explored. He was indebted to Dr. Munson, as he frankly acknowledged, but he owed far more to his own inextinguishable love of knowledge—his own adventurous and untiring industry. Though eager to gather information from any quarter, he did not trust to common fame—to nurses and root-doctors—but tried every thing in the crucible of experience. The native medicinal plants which were treated of by him, some at length and others briefly, are very numerous and belong to all the classes of remedial agents—Narcotics, Anti-spasmodics, Tonics, Astringents, Deobstruents, Emetics, Cathartics, Diuretics, Diaphoretics, Expectorants, Emmenagogues, &c.

Not only did Dr. Ives describe well many important articles before almost or wholly unknown, but he recognized certain medicinal properties or powers till his time overlooked, or but partially acknowledged. Guided by his quick perceptions and clear insight, he found that a peculiar, imperfectly described effect on the viscera of the abdomen, the glandular organs and the secretions, was produced by the continued use of such medicines as *Conium*, *Sanguinaria*, *Dandelion*, small doses of *Mercury*, &c., which he called the deobstruent effect, naming the agents themselves *Deobstruents*—an old, but till then, almost forgotten term. Dr. Tully afterwards called them *Adenagogos*. The recognition and description (not complete but sufficient) of this prominent therapeutical effect—this fundamental power—show that Dr. Ives was an acute and original observer, almost a discoverer; and had he done nothing else, his labors would entitle him to a very high rank in

our profession. But he made other discriminations of great importance. He distinguished more clearly than had been done before, the irritant or acrid-stimulant operation of *Cantharis*, *Capsicum*, *Zanthoxylon*, *Pyrethrum*—those remedies which increase susceptibility and remove torpor merely—from the arterial-stimulant action of *Alcohol*, *Wine* and *Cinchona*, which sustain the movements of the heart and arteries. The former group he termed *Acrids*. *Cantharis*, the type (say) of the class, or sub-class, was with him a favorite article, particularly in low fevers with typhoid symptoms. "It transfers,"—to use his oft-repeated but very exceptionable expression—"it transfers excitement from the nerves to the blood vessels."

Dr. Ives was accustomed to lecture to the class, in a very brief and elementary way, on Botany. (Once he gave a popular course to the people of New Haven.) The science was to him a delightful one, and he pursued it with great zeal and success, and amid the inexorable duties of his profession, for his whole life. He collected all the plants growing in New Haven and its vicinity, analyzed and classified them according to the artificial or sexual system of Linnæus, to a large extent preserved them by pressing, and could tell where every specimen grew. The natural system of Jussieu, which arranges plants according to their natural affinities, and which has now superseded the Linnæan method, was then scarcely known in this country. And that the Doctor's merits may be appreciated, it should be remembered that scientific Botany, when he began the study, was in its infancy among us, and he a "bold pioneer." The difficulty he encountered for the want of proper descriptions was very great. He obtained, with much delay and large expense, a few books from England and the Continent, and sought information by correspondence with the savans of Europe. His love of knowledge and unyielding courage alone sustained him in the arduous work. The importance of his labors was generally appreciated, and several diplomas were conferred on him by British and European societies.

In Dr. Dwight's "Statistical Account of the City of New Haven," published in 1811, may be seen a list of "Vegetable Productions found in New Haven," containing the names of about 320 species, which was prepared by Dr. Ives. A much more extended catalogue, with the names of 1156 species, "the joint production of Doctors Eli Ives, William Tully, and Melines C. Leavenworth," was printed in Baldwin's "Annals of Yale College," editions of 1831 (?) and 1838. Dr. Tully dedicated to Dr. Ives his Medical Prize Essay on *Sanguinaria Canadensis*, (published in 1828, in the *American Medical Recorder*.)

and improved the opportunity to compliment his old preceptor in the highest terms, as a cultivator of Botany and indigenous *Materia Medica*. A better authority in the matter referred to could not be named.

But it was as a practitioner that Dr. Ives appeared to best advantage. In the sick room he was at home—"master of the situation." The strain upon the intellect held his discursive faculty in check. He was shrewd, sagacious and able; self-possessed; if need be, adventurous and aggressive in practice, but still discreet; discriminating, quick to perceive, and sound in judgment; firm in his well-matured opinions, and prompt in action. So extensive was his experience, and so rapid his analysis of symptoms, that his knowledge seemed at times almost intuitive. The familiar forms of disease were comprehended so quickly, (by a glance, as it were,) that young physicians not understanding the process, were prone to think him hasty and superficial. However it may have been late in life, when protracted ill health had broken his constitution, in his early days, especially in critical or obscure cases, his investigations were searching and complete. Like a skillful general, he rarely failed "to penetrate the designs of the enemy" he would dislodge—rarely failed to make out a clear and correct diagnosis and prognosis. His extensive knowledge of remedies, and of the modifications produced by surrounding influences, and by peculiar methods of management, made him a successful prescriber. In the diseases of children, his reputation and skill were unrivalled. He was not a routinist; was not the slave of authority or fashion; was not tied up by formulas, or governed by the name of the disease; but cases were treated on rational principles, each according to symptoms and special indications. Nor did he neglect any of those circumstances in a malady which so often determine its character, progress and termination, such as age, sex, habits, period, season, mental and bodily conformation, passing emotions, &c. He believed in epidemic constitutions, and frequent changes of diathesis, which introduced new forms—styles, so to say—of disease, and required new remedial agencies.

It would be difficult to name a physician who equalled Dr. Ives in the skillful adaptation of means to ends—in the dexterous *timing* of remedies and treatment. He was, in truth, a man of infinite tact, ingenious and adroit; understood the whole art of management in the sick room; perceived how necessary it was to secure the confidence of the patient and his friends, and knew the way to obtain it. No great or good physician ever lived, who had not the power, in some

way, to inspire confidence. The candidate for practice who has not this indispensable power,—*gift* it may be called,—is doomed to failure—and starvation.

Though Dr. Ives prescribed Brandy, Opium, Aconite, Digitalis, Prussic acid, Nux-Vomica, Cinchona, Cantharis, &c., sometimes freely, he was yet more attached to mild remedies—the Vegetable Bitters and Astringents, Aromatics, Anti-spasmodics, Diaphoretics, Absorbents, &c. From the frequency with which he employed native plants of weak power, some accused him of inefficiency; but the charge was groundless. He did not feel justified in giving more or stronger medicine than the case required—could not see the wisdom of touching off a cannon to kill a fly. The prudence and reserve which appeared in his practice were no more characteristic than commendable.

Some suppose that a man can be a good physician without much study or the use of books. Dr. Ives, though intensely practical in every thing, did not think so. He was a diligent and effective student through life. His reading was chiefly professional and scientific, though it sometimes took a wider range. With the science of Agriculture he was familiar, but did not, I believe, make farming profitable. He was a much valued member of the Horticultural and Pomological Societies of New Haven, and was the President of each. In the raising of fruits, and particularly of pears, he had more than the usual success. In Thomas' Fruit Culturist, just published, five varieties of the pear bear his name. Of the Convention which framed the first U. S. Pharmacopœa, in 1820, he was a member. When the Convention met again, in 1830, he was made the President. For the three years beginning in 1824, he was the Vice President of the Connecticut Medical Society. When the American Medical Association met in New Haven, in 1860, he was chosen its President. Though never a seeker of civil honors or titles, and nearly unacquainted with "that insidious animal vulgarly called a politician," through whose influence office is usually obtained, he was yet, by no fault of his, the Antimasonic candidate for Lieut. Governor of the State in 1831.

With whatever cause Dr. Ives connected himself, whether professional, scientific, or benevolent, his soul was in it. He was earnest, enthusiastic, but not unreasonable; zealous without bitterness; unused to cant; persistent, inflexible, though not perverse; and thoroughly conscientious. His temperament was of the sanguine or sanguineo-nervous sort, and his whole life was deeply tinged by the peculiarities of his organization.

It is to be regretted that our friend wrote and published so little. His Phi Beta Kappa oration, (on Botany and Chemistry,) a few medi-

cal cases, and the catalogues of plants, already referred to; five short papers (less than six pages in the whole) on botanical and agricultural subjects, in the first and third volumes of Silliman's *Journal of Science*; "Extracts from an Address before the New Haven Horticultural Society," in 1837, and "A Historical Sketch of the Medical Society of New Haven County," with very interesting biographical notices of Drs. Leverett Hubbard, Samuel Neshitt, Ebenezer Beardsley, Eneas Monson, Sen., and Jared Potter, (the last of Wallingford, the others of New Haven,) published in January and February, 1848, in the "*Northern Literary Messenger*" of New Haven, and at a later period (October, 1852) in the *New Haven Journal and Courier*,—in the last instance the name of Levi Ives being added to the number of biographical notices,—are all which my inquiries have brought to light. They are sufficient, however, to show that our profession, to say nothing of science, has lost much—very much—by the too persistent reticence of one of its most distinguished cultivators. His numerous pupils and familiar associates have preserved a great deal which fell from his lips, or was disclosed in his practice; but a large amount of rare and valuable knowledge must have perished forever.

Dr. Ives died October 8th, 1861, having been connected with the Medical College forty-eight years. He occupied the chair of *Materia Medica* and Botany sixteen years, till 1829; that of Theory and Practice twenty-three years, till 1852; and that of *Materia Medica* again nine years, till his death, the last eight years as "Professor Emeritus."

BIOGRAPHICAL SKETCH OF
ELEAZER HUNT, M. D.

BY J. B. PORTER, M. D.

WHEN a member of a learned profession closes a long life, by far the oldest of his compeers, his professional brethren and the community evince their respect for the dead, and their sympathy for the surviving family; and we will call the attention of our Medical Society to a brief notice of the late Eleazer Hunt, M. D., of Coventry, North Society.

He was born Dec. 28th, 1786, and spent his entire life in the place of his birth. He received his preliminary education, like every Coventry boy, at the district school, acquiring some knowledge of the Latin language, previous to commencing the study of Medicine. He had as many advantages for medical instruction as New England students possessed at that day; perhaps more. He was sent to Northampton in 1807, and in his memorandum book is found the following entry: "Began to attend, in Northampton, Smith's Lectures, Oct. 12th, 1807." These, it will be remembered, were given at Dartmouth College early in the present century. Another entry shows that at the conclusion of his lecture term, Dr. H. continued his studies with the late Dr. Mason F. Cogswell, of Hartford. These were cut short in consequence of the death of an older brother, then a practitioner at Coventry, whom he at once succeeded, entering upon professional life during the summer or autumn of 1808.

At what precise date he was licensed to practice, does not appear, but the records of the County Medical Society show that on application he was made a member in September, 1811.

The same records show that he was for four years Clerk of the County Medical Society, and many times represented it as a Fellow, at the annual Conventions of the State Society. He also received the Honorary degree of M. D. in 1826.

As a physician, Dr. Hunt was discriminating, prudent and judicious. In the various departments of medicine he acquitted himself so successfully, as early to secure the confidence of his townsmen, a position

which he retained uninterruptedly and without a rival, till age, with its accompanying infirmities, forbade further labor in his chosen pursuit. Indeed, it may be said, that in the practice of medicine, as distinguished from surgery, and especially in the treatment of women and children, he was remarkably successful.

As he grew in years and experience, he was consulted by his juniors of the profession in difficult cases; and a neighboring physician recently mentioned to me, the perfect fairness, candor and integrity of Dr. Hunt in consultation.

But his race is run. After a *professional* life of almost three score years, most of it active, having received his share of the honors of this world, at the age of four score years, he sleeps the sleep of death. May we all be prepared for the great change, and at last receive the reward of "Well done good and faithful servant."

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THE
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AND
MEDICAL COMMUNICATIONS
OF THE
CONNECTICUT MEDICAL SOCIETY.

Second Series, Volume III;

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PROCEEDINGS.



The *Seventy-sixth* Convention of the Connecticut Medical Society, was held at New Haven, May 27th and 28th, 1868.

The Convention assembled at the Common Council Chamber, at 11 A. M., and was called to order by the Secretary. The President and Vice President being absent, J. G. Beckwith, M. D., was appointed Chairman.

The list of Fellows, as reported by the Clerks of the several County Meetings, was read by the Secretary.

The Chairman appointed Drs. H. W. E. Matthews, Wm. Wood, I. G. Porter, G. L. Beers, C. H. Hubbard, C. F. Sumner, L. Williams and Wm. Woodruff a Committee on Credentials.

The Committee on Credentials reported, and the following were declared duly elected Fellows of the Convention, viz :

NEW HAVEN COUNTY.

H. W. E. Matthews, M. D.	Alfred North,	M. D.
Stephen G. Hubbard, “	J. Martin Aimes,	“
J. H. Beecher, “		

HARTFORD COUNTY.

Lucian S. Wilcox, M. D.	F. A. Hart,	M. D.
William Wood, “	R. H. Tiffany,	“
George Clary, “		

NEW LONDON COUNTY.

Isaac G. Porter, M. D.	Ashbel Woodward, M. D.
†*Geo. E. Palmer, “	†O. E. Miner, “
F. S. Abbott, “	

FAIRFIELD COUNTY.

George L. Beers, M. D.	†M. B. Pardee,	‘
George F. Lewis, “	Ira Gregory,	“
George Blackman, “		

* Deceased.

† Absent

LITCHFIELD COUNTY.

Jeremiah W. Phelps, M. D.	Francis J. Young, M. D.
Josiah G. Beckwith, “	Wm. Woodruff, “
D. E. Bostwick, “	

MIDDLESEX COUNTY.

Charles H. Hubbard, M. D.	Elisha B. Nye, M. D.
Rufus W. Mathewson, “	

TOLLAND COUNTY.

Charles F. Sumner, M. D.	Gilbert H. Preston, M. D.
†Stephen G. Risley, “	

WINDHAM COUNTY.

William A. Lewis, M. D.	Samuel Hutchins, M. D.
Lewis Williams, “	Lowel Holbrook, “
Eliphalet Huntington, “	

Drs. L. Williams and H. W. E. Matthews were appointed a Committee to wait on strangers and Delegates from other Societies and introduce them to the Convention.

The Committee of Arrangements reported the order of literary exercises, which was approved by the Convention.

The President of the Society, Dr. Charles Woodward, arrived and took the chair. The election of Officers being in order, Dr. Woodward stated that he should decline re-election.

Officers were then elected for the ensuing year, viz:

S. B. BERESFORD, M. D., PRESIDENT.
 HENRY BRONSON, M. D., VICE PRESIDENT.
 JAMES C. JACKSON, M. D., TREASURER.
 MOSES C. WHITE, M. D., SECRETARY.

The order of business was suspended to receive the

REPORT OF THE COMMITTEE ON PRIZE ESSAYS,

which was presented by Dr. B. H. Catlin.

The Committee had awarded the Jewett Prize of Two Hundred Dollars for the best essay, on the question, “By what hygienic means may the health of armies be best preserved,” to the essay

† Absent.

bearing the motto, "*Haec autem cognosci experimentis.*" Upon opening the envelop bearing the same inscription, the author of the essay was found to be Prof. Roberts Bartholow, M. D., of Cincinnati, Ohio.

The Committee had awarded the Russell Prize of Two Hundred dollars for the best essay on "The Therapeutic uses and abuses of Quinine and its Salts," to the essay bearing the motto "*Quod Scripsi Vidi.*" On opening the envelop bearing the same inscription, the name of the writer was found to be Prof. Roberts Bartholow, M. D., of Cincinnati, Ohio.

The decision of the Committee on both prizes was by independent expressions of opinion, given by ballot, and was unanimous in both cases.

For the full report of the Committee, see Appendix A.

The Report of the Committee was accepted.

Dr. Catlin then introduced Prof. Bartholow to the Convention. Prof. Bartholow stated that he had served eight years in the U. S. Army, and that his personal experience in the use of Quinine and careful study of the science of army hygiene had formed the basis of the essays which had unexpectedly secured both the prizes offered by the Connecticut Medical Society.

Wm. McCollom, M. D., a delegate from the Medical Society of Vermont, E. S. F. Arnold, M. D., of Yonkers, N. Y., and Prof. J. C. Hutchinson, M. D., of Brooklyn, N. Y., delegates from the New York Medical Society, were introduced to the Convention.

Prof. J. McNaughton of Albany, an Honorary Member of the Conn. Med. Society, was also introduced. All the above named gentlemen made appropriate remarks on taking seats in the Convention.

A letter was read from the Delegates from the New Jersey Medical Society, stating that as their own society meets on the same day as the Conn. Med. Society, they would not be able to visit us this year.

On motion it was

Voted: That a Committee of one from each county be selected by the fellows of the several counties respectively to nominate persons to fill vacancies in the Standing Committees.

The Convention took a recess of a few minutes, and when order was restored, the several delegations reported as follows, and the names were read by the Secretary.

NEW HAVEN,
HARTFORD,
NEW LONDON,
FAIRFIELD,
LITCHFIELD,
MIDDLESEX,
TOLLAND,
WINDHAM,

Stephen G. Hubbard.
F. A. Hart.
A. Woodward.
Geo. Blackman.
D. E. Bostwick.
R. W. Mathewson,
C. F. Sumner.
Lewis Williams.

An invitation was received from His Honor, L. W. Sperry, the Mayor, to take an excursion about the city at some convenient hour.

On motion, the invitation was accepted and referred to the Committee of Arrangements to fix the hour when it would be most convenient to take the proposed excursion.

The Chairman appointed the following gentlemen as the Committee on County Resolves, viz: Drs. Alfred North, Isaac G. Porter, Wm. Woodruff, G. H. Preston, L. S. Wilcox, Geo. Blackman, C. H. Hubbard, Lewis Williams.

On motion of Dr. Hubbard, the Chairman appointed Drs. Isaac G. Porter, J. G. Beckwith and George Blackman, a Committee on Medical Education.

The Committee of Arrangements announced that they had fixed upon 5 P. M., for the excursion.

On motion the Convention adjourned to meet again at 2½ P. M.

Afternoon Session.

At 2½ P. M., the Convention was called to order by the Vice-President, H. Bronson, M. D. The roll was called by the Secretary.

The Committee to nominate Standing Committees, made their report, and the following gentlemen were elected to fill vacancies, viz:

On Committee of Examination—D. H. Hubbard, L. Williams, Ira Gregory, H. W. E. Matthews, C. F. Sumner.

On Committee to Nominate Professors in the Medical Institution of Yale College—Henry Pierpont, Henry F. Stearns.

On Committee to Nominate Physician to the Retreat for the Insane—J. C. Jackson, Isaac G. Porter.

On Committee of Publication—G. W. Russell, L. J. Sanford.

The Chair appointed Dr. S. G. Hubbard to fill the vacancy on the Committee on Registration.

Dr. Willoughby of Worcester, Mass., was introduced and addressed the Convention.

The Chair appointed as a *Committee to nominate Delegates to other Societies*, Drs. I. G. Porter and J. G. Beckwith.

On Gratuitous Students—Drs. J. H. Beecher and S. Hutchins.

On Honorary Degrees and Honorary Membership—Drs. Ashbel Woodward and George Blackman.

To Nominate Dissertator and Alternate.—Dr. Isaac G. Porter.

Dr. S. G. Hubbard presented the report of the Faculty of the Medical Institution of Yale College, on the Chicago Circular in regard to a new system of Medical education. The Circular and the Reply of the Faculty, were referred to the Committee on Medical Education which was appointed at the morning session.

Dr. Hubbard also presented the action of the Faculty in regard to increased facilities for anatomical dissections. The papers were referred to the Committee on Medical Education, with power to act.

Dr. B. H. Catlin presented the Report of the Committee on Registration, which was accepted and ordered on file.

Dr. Isaac G. Porter the Committee on Dissertator, made his report, which was accepted and adopted, viz, Dissertator, C. M. Carleton; Alternate, L. S. Wilcox.

At 4 P. M., Dr. S. G. Hubbard read a paper entitled "Ante-mortem and Post-Mortem Observations upon the case of the late President Day," accompanied by photographs, of remarkable calculi connected with the case.

The Secretary stated that the Committee of Publication intended to have the photographs accompanying this paper engraved and published with the Proceedings, as the case was believed to be without a complete parallel in the records of surgery.

A communication was received from the Board of Education, inviting the members of Convention to visit the Public Schools of the City at their convenience.

Voted: That the Convention accept the invitation to visit the Public Schools as the Members may find convenient on Thursday.

The Committee to nominate Delegates to other societies, made their report, which was adopted as follows, viz:

To the American Medical Association, G. W. Russell, M. D., of Hartford, A. North, M. D., of Waterbury, R. A. Manwaring, M. D., of New London, C. M. Carleton, M. D., of Norwich, Lewis Williams, M. D., of Pomfret.

To the Maine Medical Association, G. H. Preston, M. D., of Tolland, Wm. Woodruff, M.D., of Plymouth Hollow.

To the Vermont Medical Society, S. L. Childs, M. D., of East Hartford, Wm. Wood, M. D., of East Windsor Hill.

To the New Hampshire Medical Society, H. M. Knight, M. D., of Lakeville, Chas. F. Sumner, M. D., of Bolton.

To the Massachusetts Medical Society, A. W. Nelson, M. D., of Mystic, E. K. Hunt, M. D., of Hartford.

To the New York State Medical Society, Henry Bronson, M. D., of New Haven, G. L. Platt, M. D., of Waterbury, Melancthon Storrs, M. D., of Hartford, J. G. Beckwith, M. D., of Litchfield, C. A. Lindsley, M. D., of New Haven.

To the New Jersey Medical Society, B. H. Catlin, M. D., of West Meriden, Alvan Talcott, M. D., of Guilford.

Voted: That Delegates to the American Medical Association and to other Societies, have power to appoint substitutes, who may apply to the Secretary for credentials.

Voted: That the *Annual Tax* be *Two Dollars*, payable June 1st, 1868.

Voted: That 600 copies of the Proceedings be published.

The President appointed Dr. A. Woodward on the Committee on Gratuitous Students, in place of Dr. J. H. Beecher, who was absent.

The Committee on County Resolves, made their report, recommending that the action of the New Haven County Meeting expelling Henry W. Painter, M. D., for the practice of Homeopathy and for consulting with Homeopaths, be confirmed.

This recommendation was approved, and the action of New Haven County Meeting was confirmed.

The same Committee recommended that the papers presented by the Fairfield County Meeting be referred back to the Fairfield County Meeting

This recommendation was also adopted.

Voted: That the session to-morrow commence at 9 A. M.
Adjourned to 8 P. M.

Evening Session.

The Convention re-assembled at 8 P. M., the Vice President, H. Bronson, M. D., in the Chair.

The retiring President, Charles Woodward, M. D., delivered the

Annual Address on "Our Organization—Its Relations and Responsibilities."

The thanks of the Convention were voted to Dr. Woodward, the retiring President, for the able manner in which he has presided over the Convention, and for the able and interesting address delivered this evening.

H. A. Carrington, M. D., then read the Annual Dissertation on "The Relation of Theory to Practice."

A vote of thanks was tendered to Dr. Carrington, and a copy of the Dissertation was requested for publication.

On motion of Dr. S. G. Hubbard it was

Resolved: That so much of the President's Address as relates to Medical Education, be referred to the Committee on Medical Education, and so much as relates to the Organization of the Society, be referred to the Committee appointed two years ago, who desire to present a report to this Convention.

Dr. C. A. Lindsley presented a report of his visit of last summer as a Delegate to the Medical Society of New Jersey.

On motion the report was referred to the Committee of Publication.

Adjourned to 9 A. M.

Thursday Morning, May 28th.

At 9 A. M., the Convention was called to order by the Vice President, Henry Bronson, M. D.

The Committee on Honorary Degrees and Honorary Membership, made their report, and on the recommendation of said Committee, S. F. L. Simpson, M. D., of Concord, N. H., and A. T. Woodward, M. D., of Brandon, Vt., who were nominated last year, were elected to Honorary Membership. On similar recommendation the names of Wm. McCollom, M. D., of Vermont, John C. Hutchinson, M. D., of Brooklyn, N. Y., Benj. E. Cotting, M. D., of Boston, Mass., were placed on the list of Candidates for Honorary Membership.

On recommendation of the Committee it was

Resolved: That John Gray of Groton, who has been twenty-five years in the practice of medicine, be recommended to the Corporation of Yale College, as a suitable person to receive the Honorary Degree of Doctor of Medicine.

The Report of the Committee was accepted, and all the recommendations of the Committee were adopted by the Convention.

Dr. Bronson resigned the chair to the President, Dr. S. B. Beresford, who had just arrived.

Dr. Isaac G. Porter presented a Report of the Committee on Medical Education, approving the reply of the Faculty of the Medical Institution of Yale College, to the Chicago Circular on Medical Education. (See Appendix D.)

Voted: That the thanks of the Convention be tendered to the Mayor, for the use of the Council Chamber for the meetings of this Convention, and for other attentions furnished by His Honor for the pleasure of the Convention.

Voted: That the Committee to nominate Professors in Yale College, present to the Committee of Publication, a report of their doings the past year to be inserted in the Proceedings.

Voted: That the Committee of Examinations be allowed to present their report, without reading, to the Committee of Publication for insertion in the Proceedings.

The Jewett Prize Essay on *Army Hygiene* was read in part by the author, Prof. R. Bartholow, of Cincinnati, Ohio.

Dr. Henry Pierpont then exhibited a remarkable case of *Sar-
iderma Spinosum* in the person of a girl about 10 years of age. On motion of Dr. H. W. E. Matthews, it was

Resolved: That Dr. Pierpont be requested to prepare a description of the case and procure a photograph of the same for publication in the Proceedings.

Dr. J. G. Beckwith from the Committee on Organization, presented a report, which after discussion was accepted and referred to a new Committee, consisting of Drs. H. M. Knight, C. A. Lindsley, C. L. Ives, L. S. Wilcox and I. G. Porter, with instructions to put the subject in proper form for final action by the next Convention.

Dr. M. Gonzales Echeverria, by invitation, read a paper on "*The Treatment of Paralysis by Hypodermic Injection of Strychnine, and on Infantile Palsy.*"

The thanks of the Convention were voted to Dr. Echeverria for his interesting paper, and a copy was requested for publication.

Prof. R. Bartholow then read a part of the Russell Prize Essay on the "*Therapeutical Uses and Abuses of Quinine and its Salts.*" The subject was discussed by Drs. B. H. Catlin, Isaac G. Porter and W. L. Bradley.

By invitation of the Convention, Dr. Baird of New York, then read a paper on "*The Use of Electricity in the Treatment of Nervous Diseases.*"

On motion of Dr. H. W. E. Mathews, 100 additional copies of the Proceedings were ordered to be published, making the number of copies to be published 700 instead of 600 hundred as previously ordered.

The Secretary then read the list of members of the Society who had died during the past year, with brief statements of their ages, causes of death, &c., and called on Dr. E. B. Nye, who read a memoir of the late Datus Williams, M. D., of East Haddam.

A paper detailing an interesting case of *Traumatic Lesion of the Knee Joint*, read before the New London Co. meeting by E. F. Coates, and presented for publication, was read by the Chairman of the Publishing Committee.

Voted: That the next Convention be held in Hartford, commencing at 11 A. M., on the *Fourth Wednesday* in May, 1869.

On motion it was

Resolved: That the Clerks of the several County meetings be required to send a Report of their County Meetings to the Secretary of the Conn. Med. Society, *before the first of May* in each year.

It was also

Voted: That the Secretary be directed to publish a programme of the Arrangements for the Convention and send a copy of the same to every member of the Society, with a special invitation to be present at the Convention.

At 2½ P. M., the Committee of Arrangements announced that the regular business of the Convention was concluded. The President called for miscellaneous business, but no further business was presented.

Dr. C. A. Lindsley gave notice that at 8 P. M., the Members of the Convention and others, would be invited to form in procession with the New Haven Medical Association and proceed to the New Haven House, where a Dinner had been provided by the City Association.

On motion, the Convention adjourned.

An interval of half an hour was spent in friendly greetings, after which the members of the Convention, Delegates from other Societies, the City Association and other guests, accompanied by ex-Governor Buckingham and Mayor Sperry, repaired to the New Haven House. When assembled at the table,

Dr. H. Bronson made the following *Address of Welcome*.

GENTLEMEN, *The President and Fellows of the Connecticut Medical Society*: In the name of the N. H. Medical Association, I extend to you on this occasion, a cordial welcome. It is not often we are permitted to meet you face to face in this way, to enjoy a little social intercourse, to reciprocate good feeling, to strengthen old friendships, and to pledge ourselves anew to one another, and to the profession we love. It is well occasionally,—wise and well—to lay aside our graver duties—

to put off the professional harness, and have an hour's recreation—an hour in which we are at liberty to repeat some of the follies of other men—to get dyspeptic if we choose, to invite the night-mare and to-morrow's headache. We have lost none of our rights by becoming physicians—not even the right to exchange places with our patients, and to swallow, *ad libitum*, the nauseous drugs we love to give but rarely take. The outside world have their festive occasions, times of trunancy, when they throw up their heels, and talk fluently and foolishly. Then why should not we, now and then, pause in the work of counting pulses, giving bitter drafts, stroking our teeming chins, and torturing our best friends: why should not we, for a time, suspend our oracular utterances, and smoothing our wrinkled and thought-laden brows, have a little innocent pastime? Why may not we, for the moment, look and act like other men? He who says our patients will get well in our absence is a scoffer, and should have his tongue pulled out. Of course, our conduct must be such as befits our station. We must be more decorous than the outside barbarians, between whom and us there is an eternal wall of separation. Our very great dignity and the profound respect we entertain for ourselves will not allow of rollicking, unseemly demonstrations. Whatever we condescend to do must be done *secundum artem*, that is, in a scientific and artistic manner. (I add this explanation for the benefit of our friends here *over the wall*.)

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Thus closed one of the most interesting Conventions ever held by the Conn. Medical Society.

Attest,

M. C. WHITE, *Secretary*.

OFFICERS OF THE SOCIETY,
FOR 1868-9.

PRESIDENT,

S. B. BERESFORD, M. D., OF HARTFORD.

VICE-PRESIDENT,

HENRY BRONSON, M. D., OF NEW HAVEN.

TREASURER,

JAMES C. JACKSON, M. D., OF HARTFORD.

SECRETARY,

MOSES C. WHITE, M. D., OF NEW HAVEN.

STANDING COMMITTEES.

Committee of Examination.

S. B. BERESFORD, M. D., *Ex-officio*.

H. M. KNIGHT, M. D.

P. M. HASTINGS, M. D.

D. H. HUBBARD, M. D.

LEWIS WILLIAMS, M. D.

IRA GREGORY, M. D.

H. W. E. MATTHEWS, M. D.

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Committee of Publication.

M. C. WHITE, M. D., *Ex-officio*.
HENRY BRONSON, M. D.
ALVAN TALCOTT, M. D.
G. W. RUSSELL, M. D.
L. J. SANFORD, M. D.

Committee on Registration.

L. S. WILCOX, M. D.
H. W. E. MATTHEWS, M. D.
S. G. HUBBARD, M. D.

Dissertator—C. M. CARLETON, M. D.

Alternate—L. S. WILCOX, M. D.

MEMBERS OF THE SOCIETY.

HONORARY MEMBERS.

EDWARD DELAFIELD,		New York City.
JOHN DELAMATER,		Cleveland, O.
JACOB BIGELOW,		Boston, Mass.
WALTER CHANNING,		Boston, Mass.
NATHAN RYNO SMITH,		Baltimore, Md.
RICHMOND BROWNELL,		Providence, R. I.
SAMUEL HENRY DICKSON,		Philadelphia, Pa.
WILLARD PARKER,		New York City.
ALDEN MAROH,		Albany, N. Y.
CHARLES A. LEE,		New York City.
HENRY D. BULKLEY,		New York City.
J. MARION SYMS,		New York City.
FRANK H. HAMILTON,		Brooklyn, L. I.
ROBERT WATTS,		New York City.
J. V. C. SMITH,		New York City.
O. WENDELL HOLMES,		Boston, Mass.
JOSEPH SARGENT,		Worcester, Mass.
FOSTER HOOPER,		Fall River, Mass.
THOMAS C. BRINEMADE,		Troy, N. Y.
GEORGE CHANDLER,		Worcester, Mass.
GILMAN KIMBALL,		Boston, Mass.
JAMES McNAUGHTON,		Albany, N. Y.
USHER PARSONS,		Providence, R. I.
EBENEZER ALDEN,		Randolph, Mass.
B. FORDYCE BARKER,		New York City.
JOHN G. ADAMS,		New York City.
JARED LINSLEY,		New York City.
A. J. FULLER,		Bath, Me.
SAMUEL H. PENNINGTON,		Newark, N. J.
FREDERICK N. BENNETT,		Orange, N. J.
THOMAS C. FINNELL,		New York City.
N. C. HUSTED,		New York City.
JACOB P. WHITEMORE,		Chester, N. H.
THOMAS SANBORN,		Newport, N. H.
WILLIAM PIERSON,		Orange, N. J.
ARTHUR WARD,		Belleville, N. J.

HIRAM CORLISS,	-	-	-	-	-	-	Washington, N. Y.
E. K. WEBSTER,	-	-	-	-	-	-	Boscawen, N. H.
P. A. STACKPOLE,	-	-	-	-	-	-	Dover, N. H.
S. F. L. SIMPSON,	-	-	-	-	-	-	Concord, N. H.
A. T. WOODWARD,	-	-	-	-	-	-	Vt.

PROPOSED FOR HONORARY MEMBERSHIP.

WILLIAM McCOLLOM, M.D.,	-	-	-	-	-	Vt.
J. O. HUTCHINSON, M.D.,	-	-	-	-	-	Brooklyn, N. Y.
BENJ. E. COTTING, M.D.,	-	-	-	-	-	Boston, Mass.

ORDINARY MEMBERS.

The names of those who have been Presidents are in Capitals.

NEW HAVEN COUNTY.

HENRY A. CARRINGTON, M.D. of New Haven, Chairman.

EDWARD BULKLEY, M.D., of New Haven, Clerk.

NEW HAVEN, Samuel Punderson,* A. S. Monson,* NATHAN B. IVES, E. H. Bishop, Levi Ives, P. A. Jewett, David L. Daggett, George O. Sumner,* David A. Tyler, Henry Bronson, E. A. Park, S. G. Hubbard, H. W. E. Matthews, O. A. Lindsley, T. H. Totton, John Nicoll, Moses C. White, H. Pierpont, J. H. Beecher, Leonard J. Sanford, Chas. L. Ives, Edward Bulkley, W. B. De Forest, F. L. Dibble, T. Beers Townsend, Geo. A. Ward, Evelyn L. Bissell, T. H. Bishop, Eli W. Blake, Henry A. DuBois, Francis Bacon, C. O. Stockman, J. W. Barker, Charles A. Gallagher, Robert Stone, William D. Anderson, W. Lockwood Bradley, A. E. Winchell, O. F. Treadwell, H. Carrington, George F. Barker, L. M. Gilbert, J. W. Terry, S. D. Wilcoxson, Frank Gallagher. Fair Haven, Chas. S. Thomson,* W. H. Thomson, Wm. M. White. BRANFORD, H. V. C. Holcomb, Newton B. Hall. CHESHIRE, A. J. Driggs. DERBY, Charles H. Finney.	Birmingham, Ambrose Beardsley. Ansonia, C. W. Sheffrey. GUILFORD, Joel Canfield,* Alvan Talcott. HAMDEN, Edwin D. Swift. MADISON, D. M. Webb. MERIDEN, (West), B. H. CATLIN, Asa H. Churchill, James G. Bacon, Jas. J. Averill, Frederick J. Fitch. MILFORD, Hull Allen,* L. N. Beardsley, Thomas Dutton. NAUGATUCK, J. D. Mears,* S. C. Bartlett, Frank G. Tuttle. NORTH BRANFORD, Sheldon Beardsley.* NORTH HAVEN, R. F. Stillman. ORANGE, West Haven, J. Martin Aimes. OXFORD, Lewis Barnes. SEYMOUR, Thos. Stoddard, S. C. Johnson, Joshua Kendall. SOUTHBURY, A. B. Burritt.* South Britian, N. C. Baldwin. WALLINGFORD, Nehemiah Banks. WATERBURY, G. L. Platt, John Deacon, George E. Perkins, Philo G. Rockwell, Thos. Dougherty, Alfred North, Edward L. Griggs.
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* Over sixty years of age.

HARTFORD COUNTY.

S. L. CHILDS, M. D., of East Hartford, Chairman.

IRVING W. LYON, of Hartford, Clerk.

HARTFORD, Henry Holmes, S. B. BER-	FARMINGTON, Frank Wheeler, Charles
ESFORD, G. B. Hawley, G. W. Russell,	Carrington.
David Crary, P. W. Ellsworth, E. K.	Plainville, G. A. Moody, D. L. Lounsbury.
HUNT, J. S. Butler, J. O. Jackson, A.	GRANBY, North, Francis F. Allen.
W. Barrows, Thomas Miner, William	GLASTENBURY, H. C. Bunce.
Porter, John F. Wells, William R.	South Glastenbury, O. E. Hammond, G.
Brownell, P. M. Hastings, Edward	A. Hubbard.
Brinley, W. H. Tremaine, Lucian S.	MANCHESTER, William Scott.
Wilcox, Henry P. Stearns, S. O. Pres-	NEW BRITAIN, B. N. Comings, S. W. Hart,
ton, I. W. Lyon, Daniel Pall, Melanc-	Geo. Clary, C. R. Hart, E. B. Lyon.
thon Storrs, Horace S. Fuller, John	ROCKY HILL, R. W. Griswold.
O'Flaherty, Nathan Mayer, Wm. M.	SOMERS, Tariffville, G. W. Sanford.
Hudson, Geo. O. Jarvis, Albert S. Mer-	Westogue, R. A. White.
ril, Morton W. Easton.	SOUTHINGTON, Julius S. Barnes,* N. H.
BERLIN, E. Brandegee.	Byington, F. A. Hart.
BLOOMFIELD, Henry Gray.	SUFFIELD, Aeneas Rising,* O. W. Kel-
BROADBROOK, E. B. Leonard.	logg, A. R. Mason.
CANTON, Collinsville, R. H. Tiffany.	WEST GRANBY, Justus D. Wilcox.*
EAST GRANBY, Chester Hamlin.*	WEST HARTFORD, Edward Brace.*
EAST HARTFORD, S. L. Childs, Edward	WETHERSFIELD, E. F. Cook,* A. S. War-
R. Brownell.	ner.
EAST WINDSOR HILL, Sidney W. Rock-	WINDSOR, A. Morrison, S. A. Wilson.
well, William Wood.	WINDSOR LOCKS, Samuel W. Skinner,
Warehouse Point, Marcus L. Fisk.	Levi Jewett.
ENFIELD, Thompsonville, Edward F. Par-	
sons.	

NEW LONDON COUNTY.

ASHBEL WOODWARD, M. D., of Franklin, Chairman.

ALBERT T. CHAPMAN, M. D., of Mystic, Clerk.

NEW LONDON, Nathaniel S. Perkins,	Greenville, Wm. Witter.
ISAAC G. PORTER, D. P. Francis,	GROTON, Mystic River, A. W. Coates,
Robert A. Manwaring, Robert McCur-	John Gray.
dy Lord, A. W. Nelson, F. W. Brannon.	Noank, Orrin E. Miner.
NORWICH, Richard P. Tracy, Elijah Dyer,	LEBANON, Ralph E. Green.
Elisha Phinney, A. B. Halle, Lewis S.	MYSTIC, Mason Manning, Albert T. Chap-
Paddock, Chas. M. Carleton, F. S. Ab-	man.
bott.	OLD LYME, Richard Noyes.
BOZRAH, Samuel Johnson.	PRESTON, Eleazer B. Downing.
COLCHESTER, Ezekiel W. Parsons, Fred-	SPRAGUE, J. R. Fairbanks.
erick Morgan.	STONINGTON, William Hyde.
FRANKLIN, ASHBEL WOODWARD.	Mystic Bridge, E. Frank Coates.

* Over sixty years of age.

FAIRFIELD COUNTY.

SAMUEL S. NOYES, M.D., of New Canaan, Chairman.

GEORGE L. BEERS, M.D., of Bridgeport, Clerk.

Greenfield, Rufus Blakeman.*	NORWALK, John A. McLean,* Ira Gregory,* Samuel Lynes, John W. McLean,
Southport, Justus Sherwood.*	James E. Barbour, W. A. Lockwood.
BRIDGEPORT, William B. Nash,* David H. Nash, Robert Hubbard, H. L. W. Burritt, Elijah Gregory, Geo. L. Beers, Andrew I. Smith, Augustus H. Abernethy, George F. Lewis, James R. Cumming, Gustave Ohnesorg.	South Norwalk, M. B. Pardee, E. L. Higgins, W. S. Roberts.
BROOKFIELD, A. L. Williams.	RIDGEFIELD, O. S. Hickok.
DANBURY, E. P. Bennett,* James Baldwin,* William C. Bennett.	STAMFORD, N. D. Haight,* W. H. Trowbridge.
BETHEL, A. C. Benedict.	North Stamford, Geo. W. Birch.
DARIEN, Samuel Sands.	STRATFORD, Roger M. Gray, R. C. MoEwen.
EASTON, Waite R. Griswold.*	TRUMBULL, George Dyer.*
NEW CANAAN, Samuel S. Noyes,* Lewis Richards,* William B. Brownson.	WESTPORT, George Blackman,* William Badger, George B. Bouton.
	WILTON, A. E. Emery.

WINDHAM COUNTY.

HARVEY CAMPBELL, M.D., of Voluntown, Chairman.

SAMUEL HUTCHINS, M.D., of West Killingly, Clerk.

WINDHAM, Chester Hunt, E. Huntington.	POMFRET, Hiram Holt, Lewis Williams,
ASHFORD, John H. Simmons.	PUTNAM, H. W. Hough, Daniel B. Plympton.
BROOKLYN, James B. Whitcomb, Wm. Woodbridge.	SCOTLAND, Calvin B. Bromley.
CANTERBURY, Joseph Palmer.	PLAINFIELD, Moosup, Wm. A. Lewis.
CHAPLIN, Orrin Witter.*	THOMPSON, Lowell Holbrook, Charles Hosford.
HAMPTON, Dyer Hughes.*	VOLUNTOWN, Harvey Campbell.
KILLINGLY, Justin Hammond.*	WESTFORD, Farnam O. Bennett.
South Killingly, Daniel A. Hovey.*	WOODSTOCK, Lorenzo Marcy.
West Killingly, Samuel Hutchins, Frank A. Tillinghast.	East Woodstock, Asa Witter,* John Witter.
East Killingly, Edwin A. Hill.	West Woodstock, Milton Bradford.
PLAINFIELD, WM. H. OOGSWELL.	WINDHAM, Willimantic, Fred. Rogers, T. Morton Hills, Horace E. Balcom.
Central Village, Charles H. Rogers.	

* Over sixty years of age.

LITCHFIELD COUNTY.

J. W. PHILIPS, M. D., of Wolcottville, Chairman.

J. G. BROOKWITH, M. D., of Litchfield, Clerk.

LITCHFIELD, Josiah G. Beckwith,*	H. ROXBURY, Myron Downs.*
W. Bull, D. E. Bostwick.	SALISBURY, Lakeville, Benj. Welch,*
Northfield, D. B. W. Camp.	Wm. Bissell, H. M. Knight.
BARKHAMSTED, Riverton, Francis J. Young.	SHARON, Ralph Deming,* William W. Knight.
CANAAN, North, Ithamar H. Smith, Albert A. Wright.	TORRINGTON, Erastus Bancroft.*
CORNWALL, (West Cornwall), S. W. Gold, Edward Sanford, Burrill B. North.	Wolcottville, Jeremiah W. Phelps, T. S. Hanchett, A. E. Barber.
MORRIS, Garry H. Miner.*	WARREN, John B. Derickson.
Wm. Deming.	WASHINGTON, Remus M. Fowler.*
NEW MILFORD, Henry S. Turrell, J. K. Bacon.	New Preston, Sidney H. Lyman, Edward H. Lyman.
Gaylordsville, G. H. St. John, Charles F. Couch.	WATERBURY, W. S. Munger.
NORFOLK, William W. Welch, John H. Welch.	WINCHESTER, West Winsted, James Welch,* John W. Bidwell.
PLYMOUTH, Samuel T. Salisbury.	WOODBURY, Charles H. Webb, Harmon W. Shove.
Thomastown, William Woodruff.	

MIDDLESEX COUNTY.

IRA HUTCHINSON, M. D., of Cromwell, Chairman.

MINER C. HASEN, M. D., of Haddam, Clerk.

MIDDLETOWN, CHAS. WOODWARD,	DURHAM, R. W. Mathewson.
Elisha B. Nye, George W. Burke, William B. Casey, John Ellis Blake, Rufus Baker, F. G. Edgarton.	ESSEX, Alanson H. Hough, Charles H. Hubbard.
CHATHAM, Middle Haddam, Albert B. Worthington.	HADDAM, Miner C. Hasen.
CHESTER, Sylvester W. Turner.	KILLINGWORTH, G. R. Reynolds.
CLINTON, Denison H. Hubbard.	Old SAYBROOK, Asa H. King.
CROMWELL, Ira Hutchinson.	PORTLAND, George O. Jarvis, C. A. Sears.
	SAYBROOK, Deep River, Edwin Bidwell.

TOLLAND COUNTY.

CHARLES F. SUMNER, M. D., of Bolton, Chairman.

GILBERT H. PRESTON, M. D., of Tolland, Clerk.

TOLLAND, Oliver K. Isham,*	G. H. Preston.	Mansfield Center, Earl Swift,*	O. B. Griggs.
BOLTON, Chas. F. Sumner.		Mansfield Depot, Norman Brigham.*	
COLUMBIA, Moses H. Perkins.		SOMERS, Orson Wood.*	
COVENTRY, John B. Porter,*	Maurice B. Bennett.	STAFFORD, Wm. N. Clark.	
South Coventry, Timothy Dimock,*	Henry S. Dean.	West Stafford, Joshua Blodgett.*	
ELLINGTON, J. A. Warren.		Stafford Springs, C. B. Newton.	
MANSFIELD, Wm. H. Richardson.		Vernon Depot, A. R. Goodrich.	
		Rockville, Stephen G. Risley, Francis L. Dickinson, J. B. Lewis.	

* Over sixty years of age.

On motion of Dr. H. W. E. Mathews, 100 additional copies of the Proceedings were ordered to be published, making the number of copies to be published 700 instead of 600 hundred as previously ordered.

The Secretary then read the list of members of the Society who had died during the past year, with brief statements of their ages, causes of death, &c., and called on Dr. E. B. Nye, who read a memoir of the late Datus Williams, M. D., of East Haddam.

A paper detailing an interesting case of *Traumatic Lesion of the Knee Joint*, read before the New London Co. meeting by E. F. Coates, and presented for publication, was read by the Chairman of the Publishing Committee.

Voted: That the next Convention be held in Hartford, commencing at 11 A. M., on the *Fourth Wednesday* in May, 1869.

On motion it was

Resolved: That the Clerks of the several County meetings be required to send a Report of their County Meetings to the Secretary of the Conn. Med. Society, *before the first of May* in each year.

It was also

Voted: That the Secretary be directed to publish a programme of the Arrangements for the Convention and send a copy of the same to every member of the Society, with a special invitation to be present at the Convention.

At 2½ P. M., the Committee of Arrangements announced that the regular business of the Convention was concluded. The President called for miscellaneous business, but no further business was presented.

Dr. C. A. Lindsley gave notice that at 8 P. M., the Members of the Convention and others, would be invited to form in procession with the New Haven Medical Association and proceed to the New Haven House, where a Dinner had been provided by the City Association.

On motion, the Convention adjourned.

An interval of half an hour was spent in friendly greetings, after which the members of the Convention, Delegates from other Societies, the City Association and other guests, accompanied by ex-Governor Buckingham and Mayor Sperry, repaired to the New Haven House. When assembled at the table,

Dr. H. Bronson made the following *Address of Welcome*.

GENTLEMEN, *The President and Fellows of the Connecticut Medical Society*: In the name of the N. H. Medical Association, I extend to you on this occasion, a cordial welcome. It is not often we are permitted to meet you face to face in this way, to enjoy a little social intercourse, to reciprocate good feeling, to strengthen old friendships, and to pledge ourselves anew to one another, and to the profession we love. It is well occasionally,—wise and well—to lay aside our graver duties—

to put off the professional harness, and have an hour's recreation—in an hour in which we are at liberty to repeat some of the follies of other men—to get dyspeptic if we choose, to invite the night-mare and to-morrow's headache. We have lost none of our rights by becoming physicians—not even the right to exchange places with our patients, and to swallow, *ad libitum*, the nauseous drugs we love to give but rarely take. The outside world have their festive occasions, times of trunkey, when they throw up their heels, and talk fluently and foolishly. Then why should not we, now and then, pause in the work of counting pulses, giving bitter drafts, stroking our teeming china, and torturing our best friends: why should not we, for a time, suspend our oracular utterances, and smoothing our wrinkled and thought-laden brows, have a little innocent pastime? Why may not we, for the moment, look and act like other men? He who says our patients will get well in our absence is a scoffer, and should have his tongue pulled out. Of course, our conduct must be such as befits our station. We must be more decorous than the outside barbarians, between whom and us there is an eternal wall of separation. Our very great dignity and the profound respect we entertain for ourselves will not allow of rollicking, unseemly demonstrations. Whatever we condescend to do must be done *secundum artem*, that is, in a scientific and artistic manner. (I add this explanation for the benefit of our friends here *over the wall*.)

For strengthening the cords of friendship, and opening the sluices of human sympathy, there is nothing so effectual as a social gathering of this kind. If men would love one another, in the Scripture sense, they must dine together. Let those having kindred instincts, sit down in double file, *vis a vis*, at the same table, dissecting in eager, pleasant strife with the same implements, hitting elbows in friendly recognition, bursting buttons, tossing side-splitting well worn jokes at the pauses, the coldest gradually warming up, the most stolid getting humorous or humid as the case may be, and at last closing up with a grand pyrotechnic exhibition, with brilliant corruscations of wit and oratory; let men do thus, and they are ever after sworn friends. Their hearts are joined as with hooks of steel. Suspicion, jealousy and selfishness grow out of isolation. Social intercourse wears off the angular points of character, and calls forth the better qualities of our nature—humanizes, harmonizes, liberalizes.

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"Public health and public prosperity, one and inseparable, may the civil officers ever unite with the Medical Profession in the furtherance of this Union."

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Thus closed one of the most interesting Conventions ever held by the Conn. Medical Society.

Attest,

M. C. WHITE, *Secretary*.

**OFFICERS OF THE SOCIETY,
FOR 1868-9.**

PRESIDENT,

S. B. BERESFORD, M. D., OF HARTFORD.

VICE-PRESIDENT,

HENRY BRONSON, M. D., OF NEW HAVEN.

TREASURER,

JAMES C. JACKSON, M. D., OF HARTFORD.

SECRETARY,

MOSES C. WHITE, M. D., OF NEW HAVEN.

STANDING COMMITTEES.

Committee of Examination.

S. B. BERESFORD, M. D., *Ex-officio*.

H. M. KNIGHT, M. D.

P. M. HASTINGS, M. D.

D. H. HUBBARD, M. D.

LEWIS WILLIAMS, M. D.

IRA GREGORY, M. D.

H. W. E. MATTHEWS, M. D.

C. F. SUMNER, M. D.

*Committee to Nominate Professors in the Medical Institution of
Yale College.*

J. B. WHITCOMB, M. D.

J. B. LEWIS, M. D.

L. S. PADDOCK, M. D.

HENRY PIERPONT, M. D.

H. P. STEARNS, M. D.

Committee to Nominate Physician to the Retreat for the Insane.

G. H. PRESTON, M. D.
WM. WOODRUFF, M. D.
ELISHA B. NYE, M. D.
JAMES C. JACKSON, M. D.
ISAAC G. PORTER, M. D.

Committee of Publication.

M. C. WHITE, M. D., *Ex-officio*.
HENRY BRONSON, M. D.
ALVAN TALCOTT, M. D.
G. W. RUSSELL, M. D.
L. J. SANFORD, M. D.

Committee on Registration.

L. S. WILCOX, M. D.
H. W. E. MATTHEWS, M. D.
S. G. HUBBARD, M. D.

Dissertator—C. M. CARLETON, M. D.

Alternate—L. S. WILCOX, M. D.

MEMBERS OF THE SOCIETY.

HONORARY MEMBERS.

EDWARD DELAFIELD,	New York City.
JOHN DELAMATER,	Cleveland, O.
JACOB BIGELOW,	Boston, Mass.
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RICHMOND BROWNELL,	Providence, R. I.
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CHARLES A. LEE,	New York City.
HENRY D. BULKLEY,	New York City.
J. MARION SYME,	New York City.
FRANK H. HAMILTON,	Brooklyn, L. I.
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HIRAM CORLISS, -	-	-	-	-	-	Washington, N. Y.
E. K. WEBSTER, -	-	-	-	-	-	Boscawen, N. H.
P. A. STACKPOLE, -	-	-	-	-	-	Dover, N. H.
S. F. L. SIMPSON, -	-	-	-	-	-	Concord, N. H.
A. T. WOODWARD, -	-	-	-	-	-	Vt.

PROPOSED FOR HONORARY MEMBERSHIP.

WILLIAM McCOLLOM, M. D., -	-	-	-	-	Vt.
J. C. HUTCHINSON, M. D., -	-	-	-	-	Brooklyn, N. Y.
BENJ. E. COTTING, M. D., -	-	-	-	-	Boston, Mass.

ORDINARY MEMBERS.

The names of those who have been Presidents are in Capitals.

NEW HAVEN COUNTY.

HENRY A. CARRINGTON, M.D. of New Haven, Chairman.

EDWARD BULKLEY, M.D., of New Haven, Clerk.

NEW HAVEN, Samuel Punderson,* A. S. Monson,* NATHAN B. IVES, E. H. Bishop, Levi Ives, P. A. Jewett, David L. Daggett, George O. Sumner,* David A. Tyler, Henry Bronson, E. A. Park, S. G. Hubbard, H. W. E. Matthews, C. A. Lindsley, T. H. Totton, John Nicoll, Moses O. White, H. Pierpont, J. H. Beecher, Leonard J. Sanford, Chas. L. Ives, Edward Bulkley, W. B. De Forest, F. L. Dibble, T. Beers Townsend, Geo. A. Ward, Evelyn L. Bissell, T. H. Bishop, Eli W. Blake, Henry A. DuBois, Francis Bacon, C. O. Stockman, J. W. Barker, Charles A. Gallagher, Robert Stone, William D. Anderson, W. Lockwood Bradley, A. E. Winchell, O. F. Treadwell, H. Carrington, George F. Barker, L. M. Gilbert, J. W. Terry, S. D. Wilcoxson, Frank Gallagher. Fair Haven, Chas. S. Thomson,* W. H. Thomson, Wm. M. White. BRANFORD, H. V. C. Holcomb, Newton B. Hall. CHESTER, A. J. Driggs. DERBY, Charles H. Pinney.	Birmingham, Ambrose Beardsley. Ansonia, O. W. Sheffrey. GUILFORD, Joel Canfield,* Alvan Talcott. HAMDEN, Edwin D. Swift. MADISON, D. M. Webb. MERIDEN, (West), B. H. CATLIN, Asa H. Churchill, James G. Bacon, Jas. J. Averill, Frederick J. Fitch. MILFORD, Hull Allen,* L. N. Beardsley, Thomas Dutton. NAUGATUCK, J. D. Mears,* S. O. Bartlett, Frank G. Tuttle. NORTH BRANFORD, Sheldon Beardsley.* NORTH HAVEN, R. F. Stillman. ORANGE, West Haven, J. Martin Aimes. OXFORD, Lewis Barnes. SEYMOUR, Thos. Stoddard, S. C. Johnson, Joshua Kendall. SOUTHBURY, A. B. Burritt.* South Britian, N. C. Baldwin. WALLINGFORD, Nehemiah Banks. WATERBURY, G. L. Platt, John Deacon, George E. Perkins, Philo G. Rockwell, Thos. Dougherty, Alfred North, Edward L. Griggs.
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* Over sixty years of age.

HARTFORD COUNTY.

S. L. CHILDS, M. D., of East Hartford, Chairman.

IRVING W. LYON, of Hartford, Clerk.

HARTFORD, Henry Holmes, S. B. BERSFORD, G. B. Hawley, G. W. Russell, David Crary, P. W. Ellsworth, E. K. HUNT, J. S. Butler, J. C. Jackson, A. W. Barrows, Thomas Miner, William Porter, John F. Wells, William R. Brownell, P. M. Hastings, Edward Brinley, W. H. Tremaine, Lucian S. Wilcox, Henry P. Stearns, S. O. Preston, I. W. Lyon, Daniel Fall, Melancthon Storrs, Horace S. Fuller, John O'Flaherty, Nathan Mayer, Wm. M. Hudson, Geo. O. Jarvis, Albert S. Merrill, Morton W. Easton.	FARMINGTON, Frank Wheeler, Charles Carrington. Plainville, G. A. Moody, D. L. Lounsbury. GRANBY, North, Francis F. Allen. GLASTENBURY, H. C. Bunce. South Glastenbury, C. E. Hammond, G. A. Hubbard. MANCHESTER, William Scott. NEW BRITAIN, B. N. Comings, S. W. Hart, Geo. Clary, C. R. Hart, E. B. Lyon. ROCKY HILL, E. W. Griswold. SIMSBURY, Tariffville, G. W. Sanford. Westogue, R. A. White. SOUTHTON, Julius S. Barnes,* N. H. Byington, F. A. Hart. SUFFIELD, Aureus Rising,* O. W. Kellogg, A. R. Mason. WEST GRANBY, Justus D. Wilcox.* WEST HARTFORD, Edward Brace.* WETHERSFIELD, E. F. Cook,* A. S. Warner.
BURLIN, E. Brandegee. BLOOMFIELD, Henry Gray. BROADBROOK, E. R. Leonard. CANTON, Collinsville, R. H. Tiffany. EAST GRANBY, Chester Hamlin.* EAST HARTFORD, S. L. Childs, Edward R. Brownell. EAST WINDSOR HILL, Sidney W. Rockwell, William Wood. Warehouse Point, Marcus L. Fisk. ENFIELD, Thompsonville, Edward F. Parsons.	WINDSOR, A. Morrison, S. A. Wilson. WINDSOR LOCKS, Samuel W. Skinner, Levi Jewett.

NEW LONDON COUNTY.

ASHBEL WOODWARD, M. D., of Franklin, Chairman.

ALBERT T. CHAPMAN, M. D., of Mystic, Clerk.

NEW LONDON, Nathaniel S. Perkins, ISAAC G. PORTER, D. P. Francis, Robert A. Manwaring, Robert McCurdy Lord, A. W. Nelson, F. W. Brannon. NORWICH, Richard P. Tracy, Elijah Dyer, Elisha Phinney, A. B. Halle, Lewis S. Paddock, Ohas. M. Carleton, F. S. Abbott. BOZRAH, Samuel Johnson. COLCHESTER, Ezekiel W. Parsons, Frederick Morgan. FRANKLIN, ASHBEL WOODWARD.	Greenville, Wm. Witter. GROTON, Mystic River, A. W. Coates, John Gray. NOANK, Orrin E. Miner. LEBANON, Ralph E. Green. MYSTIC, Mason Manning, Albert T. Chapman. OLD LYME, Richard Noyes. PRESTON, Eleazer B. Downing. SPRAGUE, J. R. Fairbanks. STONINGTON, William Hyde. Mystic Bridge, E. Frank Coates.
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* Over sixty years of age.

FAIRFIELD COUNTY.

SAMUEL S. NOYES, M. D., of New Canaan, Chairman.

GEORGE L. BEERS, M. D., of Bridgeport, Clerk.

Greenfield, Rufus Blakeman.*	NORWALK, John A. McLean,* Ira Gregory,* Samuel Lynes, John W. McLean,
Southport, Justus Sherwood.*	James E. Barbour, W. A. Lockwood.
BRIDGEPORT, William B. Nash,* David H. Nash, Robert Hubbard, H. L. W. Burritt, Elijah Gregory, Geo. L. Beers, Andrew I. Smith, Augustus H. Abernethy, George F. Lewis, James R. Cumming, Gustave Ohnesorg.	South Norwalk, M. B. Pardee, R. L. Higgins, W. S. Roberts.
BROOKFIELD, A. L. Williams.	RIDGEFIELD, O. S. Hickok.
DANBURY, E. P. Bennett,* James Baldwin,* William O. Bennett.	STAMFORD, N. D. Haight,* W. H. Trowbridge.
BETHEL, A. C. Benedict.	North Stamford, Geo. W. Birch.
DARLEN, Samuel Sands.	STRATFORD, Roger M. Gray, R. C. McEwen.
EASTON, Waite R. Griswold.*	TRUMBULL, George Dyer.*
NEW CANAAN, Samuel S. Noyes,* Lewis Richards,* William B. Brownson.	WESTPORT, George Blackman,* William Badger, George B. Bouton.
	WILTON, A. E. Emery.

WINDHAM COUNTY.

HARVEY CAMPBELL, M. D., of Voluntown, Chairman.

SAMUEL HUTCHINS, M. D., of West Killingly, Clerk.

WINDHAM, Chester Hunt, E. Huntington.	POMFRET, Hiram Holt, Lewis Williams,
ASHFORD, John H. Simmons.	PUTNAM, H. W. Hough, Daniel B. Plympton.
BROOKLYN, James B. Whitcomb, Wm. Woodbridge.	SCOTLAND, Calvin B. Bromley.
CANTERBURY, Joseph Palmer.	PLAINFIELD, Moosup, Wm. A. Lewis.
CHAPLIN, Orrin Witter.*	THOMPSON, Lowell Holbrook, Charles Hosford.
HAMPTON, Dyer Hughes.*	VOLUNTOWN, Harvey Campbell.
KILLINGLY, Justin Hammond.*	WESTFORD, Farnam O. Bennett.
South Killingly, Daniel A. Hovey.*	WOODSTOCK, Lorenzo Marcy.
West Killingly, Samuel Hutchins, Frank A. Tillinghast.	East Woodstock, Asa Witter,* John Witter.
East Killingly, Edwin A. Hill.	West Woodstock, Milton Bradford.
PLAINFIELD, WM. H. COGSWELL.	WINDHAM, Willimantic, Fred. Rogers, T. Morton Hills, Horace E. Balcom.
Central Village, Charles H. Rogers.	

* Over sixty years of age.

LITCHFIELD COUNTY.

J. W. PHELPS, M. D., of Wolcottville, Chairman.

J. G. BROOKWITH, M. D., of Litchfield, Clerk.

LITCHFIELD, Josiah G. Beckwith,*	ROXBURY, Myron Downs.*
W. Bull, D. E. Bostwick.	SALISBURY, Lakeville, Benj. Welch,*
Northfield, D. B. W. Camp.	Wm. Bissell, H. M. Knight.
BARKHAMSTED, Riverton, Francis J.	SHARON, Ralph Deming,* William W.
Young.	Knight.
CANAAN, North, Ithamar H. Smith, Al-	TORRINGTON, Erastus Bancroft.*
bert A. Wright.	Wolcottville, Jeremiah W. Phelps, T. S.
CORNWALL, (West Cornwall), S. W. Gold,	Hanchett, A. E. Barber.
Edward Sanford, Burritt B. North.	WARREN, John B. Derickson.
MORRIS, Garry H. Miner,* Wm. Deming.	WASHINGTON, Bemus M. Fowler.*
NEW MILFORD, Henry S. Turrell, J. K.	New Preston, Sidney H. Lyman, Edward
Bacon.	H. Lyman.
Gaylordsville, G. H. St. John, Charles	WATERTOWN, W. S. Munger.
F. Couch.	WINCHESTER, West Winsted, James
NORFOLK, William W. Welch, John H.	Welch,* John W. Bidwell.
Welch.	WOODBURY, Charles H. Webb, Herman
PLYMOUTH, Samuel T. Salisbury.	W. Shove.
Thomastown, William Woodruff.	

MIDDLESEX COUNTY.

IRA HUTCHINSON, M. D., of Cromwell, Chairman.

MINER C. HAZEN, M. D., of Haddam, Clerk.

MIDDLETOWN, CHAS. WOODWARD,	DURHAM, R. W. Mathewson.
Elisha B. Nye, George W. Burke, Wil-	ESSEX, Alanson H. Hough, Charles H.
liam B. Casey, John Ellis Blake, Rufus	Hubbard.
Baker, F. G. Edgerton.	HADDAM, Miner C. Hazen.
CHATHAM, Middle Haddam, Albert B.	KILLINGWORTH, G. R. Reynolds.
Worthington.	OLD SAYBROOK, Asa H. King.
CHESTER, Sylvester W. Turner.	PORTLAND, George O. Jarvis, C. A. Sears.
CLINTON, Denison H. Hubbard.	SAYBROOK, Deep River, Edwin Bidwell.
CROMWELL, Ira Hutchinson.	

TOLLAND COUNTY.

CHARLES F. SUMNER, M. D., of Bolton, Chairman.

GILBERT H. PRESTON, M. D., of Tolland, Clerk.

TOLLAND, Oliver K. Isham,* G. H. Pres-	Mansfield Center, Earl Swift,* O. B.
ton.	Griggs.
BOLTON, Chas. F. Sumner.	Mansfield Depot, Norman Brigham.*
COLUMBIA, Moses H. Perkins.	SOMERS, Orson Wood.*
COVENTRY, John B. Porter,* Maurice B.	STAFFORD, Wm. N. Clark.
Bennett.	West Stafford, Joshua Blodgett.*
South Coventry, Timothy Dimock,* Hen-	Stafford Springs, O. B. Newton.
ry S. Dean.	Vernon Depot, A. R. Goodrich.
ELLINGTON, J. A. Warren.	Rockville, Stephen G. Riale, Francis L.
MANSFIELD, Wm. H. Richardson.	Dickinson, J. B. Lewis.

* Over sixty years of age.

SUMMARY OF MEMBERS, APRIL 1, 1868.

	Total.	Deaths.
New Haven County,.....	86.....	1
Hartford County,.....	72.....	1
New London County,.....	30.....	2
Fairfield County,.....	43.....	5
Windham County,.....	32.....	0
Litchfield County,.....	39.....	0
Middlesex County,.....	20.....	1
Tolland County,.....	21.....	0
	343	10

NOTE.—Former Fellows of the Connecticut Medical Society are *permanent members* of the Annual Convention, and take part in all the proceedings of the Convention, except the election of Officers and Standing Committees. All the *members* of the Society are especially requested to be present at the next Convention.

DEATHS OF MEMBERS DURING THE YEAR ENDING MAY 1, 1868.

New Haven County.

Prof. Worthington Hooker, M.D., of New Haven, died November 6th, 1867, of typhoid fever, aged 62 years.

Hartford County.

Roswell Hawley, M.D., of Bristol, died December, 1867, of consumption, aged 55 years.

New London County.

Erastus Osgood, M.D., of Norwich, died December 22d, 1867, of old age, aged 87 years.

George E. Palmer, M.D., of Stonington, died — —, 1868.

Fairfield County.

Hanford N. Bennett, M.D., of Bridgeport, died April 21st, 1868, of Meningitis, aged 49 years, 11 months.

S. P. V. R. Ten Broeck, M.D., of Fairfield, died April 21st, 1868.

Frank N. H. Young, of Danbury, died of Bright's Disease.

William T. Shelton, M.D., of Stratford, died March 5th, 1868, of old age, aged 77 years and 7 days.

James H. Shelton, M.D., of Huntington, died May 10th, 1868, of Dropsy, aged 63 years.

Middlesex County.

Datus Williams, M.D., of East Haddam, died Nov. 4, 1867, aged 74 years 8 months and 9 days.

DUTIES OF COUNTY CLERKS.

To warn County Meetings.

To record the proceedings of the County Meetings.

To collect the taxes and pay the same to the Treasurer.

To return to the Treasurer the names of Members delinquent on taxes, with the amounts severally due from each.

To transmit to the Secretary a list of the elected Fellows, and the person recommended as a candidate for a gratuitous course of lectures in the Medical Institution of Yale College, and the titles of essays recommended for publication, with the names of their authors, by the first of May in each year.

To transmit duplicate lists of the Members of the Society to the Secretary and Treasurer, on or before the first day of the Convention, on penalty of five dollars for each neglect.

To report to the Secretary of the State Society, on the first day of its Annual Convention, the names, ages, and diseases of the Members of this Society who have died during the year preceding the 1st of April in each year, in their several County Societies.

 RULES OF ORDER.

1. Organization.
2. Certificates of Membership presented and read by the Secretary.
3. Committee on the Election of Fellows.
4. Address of President.
5. Election of officers for ensuing year.
6. Unfinished business of previous year disposed of.
7. Reception and reference, without debate, of Communications, Resolves, &c., from the several Counties, and Members of the Convention.
8. Reading Treasurer's Report.
9. Committee to audit the same.
10. Standing Committees appointed.
11. Committee to nominate Delegates to American Medical Association.
12. Committee on Candidates for Gratuitous Course of Lectures.
13. Committee on Honorary Degrees and Honorary Membership.
14. Committee to nominate Dissertator.
15. Dissertation.
16. Reports of Committees appointed on County Communications, Resolves, &c.
17. Reports of Standing Committees.
18. Reports of Committees in the order in which business was brought forward in Convention.
19. Miscellaneous business.

APPENDIX A.

Report of the Committee on Prize Essays.

The Committee on Prize Essays, respectfully report,—

That the authors of the essays presented to the Committee last year in competition for the Jewett Prize on the question, "By what Hygienic means may the health of armies be best preserved," in accordance with an offer extended to them, recalled their papers for alteration or improvement. Three of them were returned and one new one received.

The Committee have carefully read and closely examined all these papers, and after consultation and mature deliberation have unanimously awarded the Jewett Prize to the Essay bearing the motto "Haec autem cognosi experimentis."

Upon opening the envelop bearing the same device, the name of the author was ascertained to be Roberts Bartholow, A. M., M. D., of Cincinnati, Ohio.

For the Russell Prize upon "The Therapeutic Uses and Abuses of Quinine and its Salts," seven valuable essays have been received.

The Committee have most faithfully read, examined and compared these papers, and after consultation and deliberation, have by an independent expression of opinion by ballot, (as on the former question), unanimously awarded the Russell Prize to the essay bearing the motto "Quod scripsi vidi."

On examination of the envelop superscribed with the same device, the author was found to be Roberts Bartholow, A. M., M. D., Prof. of Materia Medica and Therapeutics, in the Medical College of Ohio.

In awarding these prizes, the Committee do not hold themselves responsible for every opinion or sentiment they contain. For instance, the author's opinion on the use of Quinine in continued fevers is contrary to the experience of some, if not all the members of the Committee. In regard to the unsuccessful essays, the Committee

would remark that most of them are valuable papers containing the results of much practical experience and extensive research. If they could be published in the Medical Journals they would, it is believed, be well received, and the Committee would take pleasure in referring to them. One of those competing for the Jewett prize was very voluminous, involving great labor in its preparation, but it is better calculated for a volume than a prize essay. One upon Quinine should be more particularly mentioned. Its mechanical execution was very perfect—besides, it contained a large amount of the author's personal experience, and the therapeutic history of Quinine up to the present time. It should be given to the public in some form.

B. H. CATLIN.
LEONARD J. SANFORD.
HENRY BRONSON.
MELANCTHON STORRS.
CHARLES L. IVES.

New Haven, May 27, 1868.

The unsuccessful essays are in the hands of the gentlemen to whom they were forwarded, subject to the order of their authors.

APPENDIX B.

Report of the Committee of Examination.

Your Committee beg leave to report that at the examination, at the close of the summer session of the Medical Institution of Yale College, held July 16th, 1867, there were present on the part of the Society, Chas. Woodward, M. D., President ex-officio, Ira Hutchinson, M. D., H. N. Bennett, M. D., Chas. L. Ives, M. D., and on the part of the College, Profs. Hooker, Hubbard, Lindsley and Sanford, with Drs. T. B. Townsend and G. F. Barker.

The following gentlemen were examined and recommended for the Degree of M. D. :—

GEORGE E. CRAGIN, Wallingford. Thesis, Oxalic Acid in Rhabd.

THEODORE R. NOYES, Wallingford. Thesis, Experimental researches on the Elimination of Urea.

JULIAN NEWELL PARKER, Mansfield. Thesis, Sleep.

ALFRED EASTMAN WALKER, B.A., New Haven. Thesis, Inflammation.

WILLIAM VIRGIL WILSON, New Haven. Thesis, Wounds in general.

The Theses of the first two gentlemen were based upon very elaborate original research—and the results obtained were deemed so important that the Board voted that the thesis of Mr. Noyes be sent for publication to the American Journal of Medical Science, and that the thesis of Mr. Cragin be recommended for publication in the Transactions of the Conn. Med. Society.

The Examination at the close of the winter session, was held January 9th, 1868. Present, of your Committee, Drs. Chas. Woodward, Hutchinson, Knight, Ives and Hastings; on the part of Yale College, Profs. Hubbard, Lindsley, White, Sanford, Barker and Dr. T. B. Townsend.

The following gentlemen were duly examined and recommended for the Degree of M. D. :

ROBERT BEARDSLEY GOODYEAR, North Haven. Thesis, Typhoid Fever.

THOMAS HAUGHEE, B. A., New Haven. Thesis, On the Microscopic structure of the Kidney and its Function.

HENRY MARTIN RISING, Norwich. Thesis, Acute Peritonitis,

JAMES LANGFORD WEAVER, Noank. Thesis, The Physician.

The prize of a pocket case of Instruments offered by the late Prof Hooker to the candidate passing the best examination, and placed by his widow in the hands of your Committee, was awarded to Mr. H. M. Rising.

E. K. Hunt, M. D., of Hartford, was appointed to deliver the Annual Address before the Candidates for degrees in 1869, with H. A. Carrington, M. D., of New Haven, as alternate.

In the evening, the Commencement exercises were held in the lecture room of the College,—embracing the Valedictory Address by Mr. J. L. Weaver, the Prize Presentation and the conferring of Degrees by the President. Through the failure of the appointee, Dr. R. Hubbard, of Bridgeport, there was no Annual Address.

In conclusion, your Committee take pleasure in testifying to the general proficiency in the examinations in the various departments, and especially to the great improvement in Chemistry, in which medical students so generally fail. It is a gratifying fact that two of the candidates had returned to this Institution from a lecture course in one of our larger cities, because they could nowhere find facilities for chemical study equal to those enjoyed here.

Your Committee would also record the satisfaction with which then recognize the endeavor of the Faculty of the College to remedy the acknowledged imperfections of a mere lecture course, by the thorough and regular recitations of the Summer Session. And they would recommend such instruction to those preparing to enter the profession, as tending to develop that mental discipline, without which, unfortunately, so many undertake the study of medicine.

Respectfully submitted on behalf of the Committee,

CHAS. L. IVES, *Secretary*.

APPENDIX C.

Report of Nominating Committee.

The Committee appointed to Nominate Professors in the Medical Institution of Yale College, would respectfully Report—

That a meeting of the Joint Committee of the Corporation of Yale College and the Connecticut Medical Society was held in New Haven, agreeably to the call of the President of Yale College, at his house, July 18th, 1867.

There were present, on the part of the Corporation of Yale College, Rev. Theodore D. Woolsey, D. D., LL. D., Rev. Joseph Eldridge, D. D., Rev. Joel H. Linsley, D. D., and on the part of the Connecticut Medical Society, L. S. Paddock, M. D., James B. Whitcomb, M. D., and C. E. Hammond, M. D.

At this meeting, George F. Barker, M. D., was nominated as Professor of Physiological Chemistry and Toxicology, and Moses C. White, M. D., was nominated as Professor of Pathology and Microscopy in the Medical Institution of Yale College.

Your Committee would also Report—

That a meeting of the Joint Committee of the Corporation of Yale College and the Connecticut Medical Society was held agreeably to the call of the President of Yale College, at his rooms in New Haven, April 3d, 1868. There were present, on the part of the Corporation of Yale College, Theodore D. Woolsey, D. D., LL. D., His Excellency Gov. James E. English, and Rev. Hiram P. Arms, M. D., and on the part of the Connecticut Medical Society, Samuel T. Salisbury, M. D., James B. Whitcomb, M. D., and J. B. Lewis, M. D.

A vote by ballot was taken to nominate a Professor to fill a vacancy occasioned by the decease of Worthington Hooker, M. D., Professor of the Theory and Practice of Medicine, which resulted in the unanimous nomination of Charles L. Ives, M. D., to fill said vacancy.

All which is respectfully submitted.

On behalf of the Committee of the Conn. Medical Society.

SAMUEL T. SALISBURY.

APPENDIX D.

Report of the Committee on Medical Education.

The Committee on Medical Education, to whom was referred the Circular recently issued by a Convention of Delegates from Medical Colleges, which assembled at Cincinnati, May 3, 1867, to consider the subject of a revised system of Medical Education, beg leave to report—

That they have examined the Circular issued by said Convention, and also the reply to the same by the Faculty of the Medical Institution of Yale College, a copy of which has been read to this Convention and referred to your Committee. Your Committee fully approve of the reply given by the Faculty of Yale College, and, in addition, would state their belief, that for reasons therein given, a change so revolutionary and uncalled for by the existing exigencies of the country as the one proposed by the Cincinnati Convention, whose views are set forth in the Circular dated Chicago, Aug. 1, 1867, would operate unfavorably upon the interests of the College with which this Society is associated, as well as many others in the country; and that, judging from past experience, it would fail of general, and much more of universal, adoption.

ISAAC G. PORTER,
J. G. BECKWITH,
GEORGE BLACKMAN, } Committee.

The FACULTY OF THE MEDICAL INSTITUTION OF YALE COLLEGE, transmit to the President and Fellows of the Connecticut Medical Society, the accompanying Circular issued by the Convention of Delegates from Medical Colleges, held in 1867, at Cincinnati, "for the purpose of revising the system of Medical College instruction in this country," together with their reply thereto.

The following Resolutions of the Convention embody the proposed changes in the plan of Medical Teaching:

"*Resolved, 1st.* That every student applying for matriculation in a Medical College, shall be required to show, either by satisfactory certificate, or by direct examination by a committee of the Faculty, that he possesses a knowledge of the common English

branches of education, including the first series of mathematics, the elements of the natural sciences, and a sufficient knowledge of Latin and Greek to understand the technical terms of the profession; and that the certificate presented, or the result of the examination thus required, be regularly filed as a part of the records of each Medical College.

2d. That every medical student shall be required to study four full years, including three regular annual courses of Medical College instruction, before being admitted to an examination for the degree of Doctor of Medicine.

3d. That the minimum duration of a regular annual lecture term, or course of Medical College instruction, shall be six calendar months.

4th. That every Medical College shall embrace in its Curriculum the following branches, to be taught by not less than nine Professors, viz :—

Descriptive Anatomy, including Dissections; Physiology and Histology; Inorganic Chemistry; Materia Medica; Organic Chemistry and Toxicology; General Pathology, Therapeutics, Pathological Anatomy, and Public Hygiene; Surgical Anatomy and Operations of Surgery; Medical Jurisprudence and Medical Ethics; Practice of Medicine; Practice of Surgery; Obstetrics, and Diseases of Women and Children; Clinical Medicine and Clinical Surgery; and that these several branches shall be divided into three groups or series, corresponding with the three courses of Medical College instruction required.

The first, or *Freshman series*, shall embrace Descriptive Anatomy and Practical Dissections; Physiology and Histology; Inorganic Chemistry, and Materia Medica. To these the attention of the student shall be mainly restricted during his first course of Medical College instruction, and in these he shall submit to a thorough examination by the proper members of the Faculty, at its close, and receive a certificate indicating the degree of his progress.

The second, or *Junior series*, shall embrace Organic Chemistry and Toxicology; General Pathology, Pathological Anatomy, Therapeutics, and Public Hygiene; Surgical Anatomy and Operations of Surgery; Medical Jurisprudence and Medical Ethics. To these the attention of the medical student shall be directed during his second course of Medical College instruction, and in them he shall be examined, at the close of his second course, in the same manner as after the first.

The third, or *Senior series*, shall embrace Practical Medicine; Practical Surgery; Obstetrics and Diseases peculiar to Women and Children; with Clinical Medicine and Clinical Surgery in a Hospital. These shall occupy the attention of the student during his third course of College instruction, and at its close he shall be eligible to a general examination for the degree of Doctor of Medicine.

The instruction in the three series is to be given simultaneously,

and to continue throughout the whole of each annual College term; each student attending the lectures on such branches as belong to his period of progress in study, in the same manner as the Sophomore, Junior and Senior Classes, each pursue their studies simultaneously throughout the Collegiate year, in all our Literary Colleges.

5th. That every Medical College should immediately adopt some effectual method of ascertaining the actual attendance of students, upon its lectures and other exercises, and at the close of each session, or of the attendance of the student, a certificate, specifying the time and the courses of instruction actually attended, should be given, and such certificate only should be received by other Colleges, as evidence of such attendance."

The questions to which the Faculty were requested to respond, were—

"1st. Do your Faculty, together with the governing authority of your College, approve of the several propositions as a whole?

2d. If you do not approve of the plan of revision, as a whole, what changes would you suggest?

3d. If you approve of the plan as a whole, or of all its essential features, will your College be ready to adopt it practically, and issue your Annual Announcement for the College term of 1868-9, in accordance therewith; provided all the principal Medical Colleges in this country (or at least those in the cities of Boston, New York, Philadelphia, Baltimore, Richmond, Charleston, New Orleans, Louisville, Cincinnati, St. Louis, Chicago, Buffalo, and Albany) will agree to do the same at the same time?"

N. S. DAVIS,	} Committee.
S. D. GROSS,	
GEO. C. BLACKMAN,	
F. DONALDSON.	

CHICAGO, Aug. 1st, 1867.

MEDICAL INSTITUTION OF YALE COLLEGE, }
New Haven, April 4, 1868.

N. S. DAVIS, M. D., Chairman of Committee of Medical Teachers' Convention:

DEAR SIR,—The Circular issued by your Committee, presenting to the Faculty of the College the several propositions adopted by the Convention of Medical Teachers, held last year at Cincinnati, and soliciting definite action thereon, to the end that they may be simultaneously and practically adopted throughout the whole country, has been fully considered by the Faculty; and the undersigned have been directed to transmit to your Committee the following reply. In doing so, however, we cannot neglect the opportunity of expressing, both for our colleagues and ourselves, our active sympathy with every well considered movement, having

SUMMARY OF MEMBERS, APRIL 1, 1868.

	Total.	Deaths.
New Haven County,.....	86.....	1
Hartford County,.....	72.....	1
New London County,.....	80.....	2
Fairfield County,.....	43.....	5
Windham County,.....	32.....	0
Litchfield County,.....	39.....	0
Middlesex County,.....	20.....	1
Tolland County,.....	21.....	0
	343	10

NOTE.—Former Fellows of the Connecticut Medical Society are *permanent members* of the Annual Convention, and take part in all the proceedings of the Convention, except the election of Officers and Standing Committees. All the *members* of the Society are especially requested to be present at the next Convention.

DEATHS OF MEMBERS DURING THE YEAR ENDING MAY 1, 1868.

New Haven County.

Prof. Worthington Hooker, M.D., of New Haven, died November 6th, 1867, of typhoid fever, aged 62 years.

Hartford County.

Roswell Hawley, M.D., of Bristol, died December, 1867, of consumption, aged 55 years.

New London County.

Erastus Osgood, M.D., of Norwich, died December 22d, 1867, of old age, aged 87 years.

George E. Palmer, M.D., of Stonington, died — —, 1868.

Fairfield County.

Hanford N. Bennett, M.D., of Bridgeport, died April 21st, 1868, of Meningitis, aged 49 years, 11 months.

S. P. V. R. Ten Broeck, M.D., of Fairfield, died April 21st, 1868.

Frank N. H. Young, of Danbury, died of Bright's Disease.

William T. Shelton, M.D., of Stratford, died March 5th, 1868, of old age, aged 77 years and 7 days.

James H. Shelton, M.D., of Huntington, died May 10th, 1868, of Dropsy, aged 63 years.

Middlesex County.

Datus Williams, M.D., of East Haddam, died Nov. 4, 1867, aged 74 years 8 months and 9 days.

DUTIES OF COUNTY CLERKS.

To warn County Meetings.

To record the proceedings of the County Meetings.

To collect the taxes and pay the same to the Treasurer.

To return to the Treasurer the names of Members delinquent on taxes, with the amounts severally due from each.

To transmit to the Secretary a list of the elected Fellows, and the person recommended as a candidate for a gratuitous course of lectures in the Medical Institution of Yale College, and the titles of essays recommended for publication, with the names of their authors, by the first of May in each year.

To transmit duplicate lists of the Members of the Society to the Secretary and Treasurer, on or before the first day of the Convention, on penalty of five dollars for each neglect.

To report to the Secretary of the State Society, on the first day of its Annual Convention, the names, ages, and diseases of the Members of this Society who have died during the year preceding the 1st of April in each year, in their several County Societies.

 RULES OF ORDER.

1. Organization.
2. Certificates of Membership presented and read by the Secretary.
3. Committee on the Election of Fellows.
4. Address of President.
5. Election of officers for ensuing year.
6. Unfinished business of previous year disposed of.
7. Reception and reference, without debate, of Communications, Resolves, &c., from the several Counties, and Members of the Convention.
8. Reading Treasurer's Report.
9. Committee to audit the same.
10. Standing Committees appointed.
11. Committee to nominate Delegates to American Medical Association.
12. Committee on Candidates for Gratuitous Course of Lectures.
13. Committee on Honorary Degrees and Honorary Membership.
14. Committee to nominate Dissertator.
15. Dissertation.
16. Reports of Committees appointed on County Communications, Resolves, &c.
17. Reports of Standing Committees.
18. Reports of Committees in the order in which business was brought forward in Convention.
19. Miscellaneous business.

APPENDIX A.

Report of the Committee on Prize Essays.

The Committee on Prize Essays, respectfully report,—

That the authors of the essays presented to the Committee last year in competition for the Jewett Prize on the question, "By what Hygienic means may the health of armies be best preserved," in accordance with an offer extended to them, recalled their papers for alteration or improvement. Three of them were returned and one new one received.

The Committee have carefully read and closely examined all these papers, and after consultation and mature deliberation have unanimously awarded the Jewett Prize to the Essay bearing the motto "*Hæc autem cognosi experimentis.*"

Upon opening the envelop bearing the same device, the name of the author was ascertained to be Roberts Bartholow, A. M., M. D., of Cincinnati, Ohio.

For the Russell Prize upon "The Therapeutic Uses and Abuses of Quinine and its Salts," seven valuable essays have been received.

The Committee have most faithfully read, examined and compared these papers, and after consultation and deliberation, have by an independent expression of opinion by ballot, (as on the former question), unanimously awarded the Russell Prize to the essay bearing the motto "*Quod scripsi vidi.*"

On examination of the envelop superscribed with the same device, the author was found to be Roberts Bartholow, A. M., M. D., Prof. of Materia Medica and Therapeutics, in the Medical College of Ohio.

In awarding these prizes, the Committee do not hold themselves responsible for every opinion or sentiment they contain. For instance, the author's opinion on the use of Quinine in continued fevers is contrary to the experience of some, if not all the members of the Committee. In regard to the unsuccessful essays, the Committee

would remark that most of them are valuable papers containing the results of much practical experience and extensive research. If they could be published in the Medical Journals they would, it is believed, be well received, and the Committee would take pleasure in referring to them. One of those competing for the Jewett prize was very voluminous, involving great labor in its preparation, but it is better calculated for a volume than a prize essay. One upon Quinine should be more particularly mentioned. Its mechanical execution was very perfect—besides, it contained a large amount of the author's personal experience, and the therapeutic history of Quinine up to the present time. It should be given to the public in some form.

B. H. CATLIN.
LEONARD J. SANFORD.
HENRY BRONSON.
MELANCTHON STORRS.
CHARLES L. IVES.

New Haven, May 27, 1868.

The unsuccessful essays are in the hands of the gentlemen to whom they were forwarded, subject to the order of their authors.

APPENDIX B.

Report of the Committee of Examination.

Your Committee beg leave to report that at the examination, at the close of the summer session of the Medical Institution of Yale College, held July 16th, 1867, there were present on the part of the Society, Chas. Woodward, M. D., President ex-officio, Ira Hutchinson, M. D., H. N. Bennett, M. D., Chas. L. Ives, M. D., and on the part of the College, Profis. Hooker, Hubbard, Lindsley and Sanford, with Drs. T. B. Townsend and G. F. Barker.

The following gentlemen were examined and recommended for the Degree of M. D. :—

GEORGE E. CRAGIN, Wallingford. Thesis, Oxalic Acid in Rhu-rh. barb.

THEODORE R. NOYES, Wallingford. Thesis, Experimental re-searches on the Elimination of Urea.

JULAN NEWELL PARKER, Mansfield. Thesis, Sleep.

ALFRED EASTMAN WALKER, B.A., New Haven. Thesis, In-flammation.

WILLIAM VIRGIL WILSON, New Haven. Thesis, Wounds in general.

The Theses of the first two gentlemen were based upon very elaborate original research—and the results obtained were deemed so important that the Board voted that the thesis of Mr. Noyes be sent for publication to the American Journal of Medical Science, and that the thesis of Mr. Cragin be recommended for publication in the Transactions of the Conn. Med. Society.

The Examination at the close of the winter session, was held January 9th, 1868. Present, of your Committee, Drs. Chas. Wood-ward, Hutchinson, Knight, Ives and Hastings; on the part of Yale College, Profis. Hubbard, Lindsley, White, Sanford, Barker and Dr. T. B. Townsend.

The following gentlemen were duly examined and recommended for the Degree of M. D. :

ROBERT BEARDSLEY GOODYEAR, North Haven. Thesis, Typhoid Fever.

THOMAS HAUGHER, B. A., New Haven. Thesis, On the Microscopic structure of the Kidney and its Function.

HENRY MARTIN RISING, Norwich. Thesis, Acute Peritonitis,

JAMES LANGFORD WEAVER, Noank. Thesis, The Physician.

The prize of a pocket case of Instruments offered by the late Prof. Hooker to the candidate passing the best examination, and placed by his widow in the hands of your Committee, was awarded to Mr. H. M. Rising.

E. K. Hunt, M. D., of Hartford, was appointed to deliver the Annual Address before the Candidates for degrees in 1869, with H. A. Carrington, M. D., of New Haven, as alternata.

In the evening, the Commencement exercises were held in the lecture room of the College,—embracing the Valedictory Address by Mr. J. L. Weaver, the Prize Presentation and the conferring of Degrees by the President. Through the failure of the appointee, Dr. R. Hubbard, of Bridgeport, there was no Annual Address.

In conclusion, your Committee take pleasure in testifying to the general proficiency in the examinations in the various departments, and especially to the great improvement in Chemistry, in which medical students so generally fail. It is a gratifying fact that two of the candidates had returned to this Institution from a lecture course in one of our larger cities, because they could nowhere find facilities for chemical study equal to those enjoyed here.

Your Committee would also record the satisfaction with which then recognize the endeavor of the Faculty of the College to remedy the acknowledged imperfections of a mere lecture course, by the thorough and regular recitations of the Summer Session. And they would recommend such instruction to those preparing to enter the profession, as tending to develop that mental discipline, without which, unfortunately, so many undertake the study of medicine.

Respectfully submitted on behalf of the Committee,

CHAS. L. IVES, *Secretary*.

APPENDIX C.

Report of Nominating Committee.

The Committee appointed to Nominate Professors in the Medical Institution of Yale College, would respectfully Report—

That a meeting of the Joint Committee of the Corporation of Yale College and the Connecticut Medical Society was held in New Haven, agreeably to the call of the President of Yale College, at his house, July 18th, 1867.

There were present, on the part of the Corporation of Yale College, Rev. Theodore D. Woolsey, D. D., LL. D., Rev. Joseph Eldridge, D. D., Rev. Joel H. Linsley, D. D., and on the part of the Connecticut Medical Society, L. S. Paddock, M. D., James B. Whitcomb, M. D., and C. E. Hammond, M. D.

At this meeting, George F. Barker, M. D., was nominated as Professor of Physiological Chemistry and Toxicology, and Moses C. White, M. D., was nominated as Professor of Pathology and Microscopy in the Medical Institution of Yale College.

Your Committee would also Report—

That a meeting of the Joint Committee of the Corporation of Yale College and the Connecticut Medical Society was held agreeably to the call of the President of Yale College, at his rooms in New Haven, April 3d, 1868. There were present, on the part of the Corporation of Yale College, Theodore D. Woolsey, D. D., LL. D., His Excellency Gov. James E. English, and Rev. Hiram P. Arms, M. D., and on the part of the Connecticut Medical Society, Samuel T. Salisbury, M. D., James B. Whitcomb, M. D., and J. B. Lewis, M. D.

A vote by ballot was taken to nominate a Professor to fill a vacancy occasioned by the decease of Worthington Hooker, M. D., Professor of the Theory and Practice of Medicine, which resulted in the unanimous nomination of Charles L. Ives, M. D., to fill said vacancy.

All which is respectfully submitted.

On behalf of the Committee of the Conn. Medical Society.

SAMUEL T. SALISBURY.

APPENDIX D.

Report of the Committee on Medical Education.

The Committee on Medical Education, to whom was referred the Circular recently issued by a Convention of Delegates from Medical Colleges, which assembled at Cincinnati, May 3, 1867, to consider the subject of a revised system of Medical Education, beg leave to report—

That they have examined the Circular issued by said Convention, and also the reply to the same by the Faculty of the Medical Institution of Yale College, a copy of which has been read to this Convention and referred to your Committee. Your Committee fully approve of the reply given by the Faculty of Yale College, and, in addition, would state their belief, that for reasons therein given, a change so revolutionary and uncalled for by the existing exigencies of the country as the one proposed by the Cincinnati Convention, whose views are set forth in the Circular dated Chicago, Aug. 1, 1867, would operate unfavorably upon the interests of the College with which this Society is associated, as well as many others in the country; and that, judging from past experience, it would fail of general, and much more of universal, adoption.

ISAAC G. PORTER,
J. G. BECKWITH,
GEORGE BLACKMAN, } *Committee.*

THE FACULTY OF THE MEDICAL INSTITUTION OF YALE COLLEGE, transmit to the President and Fellows of the Connecticut Medical Society, the accompanying Circular issued by the Convention of Delegates from Medical Colleges, held in 1867, at Cincinnati, "for the purpose of revising the system of Medical College instruction in this country," together with their reply thereto.

The following Resolutions of the Convention embody the proposed changes in the plan of Medical Teaching :

"*Resolved, 1st.* That every student applying for matriculation in a Medical College, shall be required to show, either by satisfactory certificate, or by direct examination by a committee of the Faculty, that he possesses a knowledge of the common English

branches of education, including the first series of mathematics, the elements of the natural sciences, and a sufficient knowledge of Latin and Greek to understand the technical terms of the profession; and that the certificate presented, or the result of the examination thus required, be regularly filed as a part of the records of each Medical College.

2d. That every medical student shall be required to study four full years, including three regular annual courses of Medical College instruction, before being admitted to an examination for the degree of Doctor of Medicine.

3d. That the minimum duration of a regular annual lecture term, or course of Medical College instruction, shall be six calendar months.

4th. That every Medical College shall embrace in its Curriculum the following branches, to be taught by not less than nine Professors, viz:—

Descriptive Anatomy, including Dissections; Physiology and Histology; Inorganic Chemistry; *Materia Medica*; Organic Chemistry and Toxicology; General Pathology, Therapeutics, Pathological Anatomy, and Public Hygiene; Surgical Anatomy and Operations of Surgery; Medical Jurisprudence and Medical Ethics; Practice of Medicine; Practice of Surgery; Obstetrics, and Diseases of Women and Children; Clinical Medicine and Clinical Surgery; and that these several branches shall be divided into three groups or series, corresponding with the three courses of Medical College instruction required.

The first, or *Freshman series*, shall embrace Descriptive Anatomy and Practical Dissections; Physiology and Histology; Inorganic Chemistry, and *Materia Medica*. To these the attention of the student shall be mainly restricted during his first course of Medical College instruction, and in these he shall submit to a thorough examination by the proper members of the Faculty, at its close, and receive a certificate indicating the degree of his progress.

The second, or *Junior series*, shall embrace Organic Chemistry and Toxicology; General Pathology, Pathological Anatomy, Therapeutics, and Public Hygiene; Surgical Anatomy and Operations of Surgery; Medical Jurisprudence and Medical Ethics. To these the attention of the medical student shall be directed during his second course of Medical College instruction, and in them he shall be examined, at the close of his second course, in the same manner as after the first.

The third, or *Senior series*, shall embrace Practical Medicine; Practical Surgery; Obstetrics and Diseases peculiar to Women and Children; with Clinical Medicine and Clinical Surgery in a Hospital. These shall occupy the attention of the student during his third course of College instruction, and at its close he shall be eligible to a general examination for the degree of Doctor of Medicine.

The instruction in the three series is to be given simultaneously,

and to continue throughout the whole of each annual College term; each student attending the lectures on such branches as belong to his period of progress in study, in the same manner as the Sophomore, Junior and Senior Classes, each pursue their studies simultaneously throughout the Collegiate year, in all our Literary Colleges.

5th. That every Medical College should immediately adopt some effectual method of ascertaining the actual attendance of students, upon its lectures and other exercises, and at the close of each session, or of the attendance of the student, a certificate, specifying the time and the courses of instruction actually attended, should be given, and such certificate only should be received by other Colleges, as evidence of such attendance."

The questions to which the Faculty were requested to respond, were—

"1st. Do your Faculty, together with the governing authority of your College, approve of the several propositions as a whole?

2d. If you do not approve of the plan of revision, as a whole, what changes would you suggest?

3d. If you approve of the plan as a whole, or of all its essential features, will your College be ready to adopt it practically, and issue your Annual Announcement for the College term of 1868-9, in accordance therewith; provided all the principal Medical Colleges in this country (or at least those in the cities of Boston, New York, Philadelphia, Baltimore, Richmond, Charleston, New Orleans, Louisville, Cincinnati, St. Louis, Chicago, Buffalo, and Albany) will agree to do the same at the same time?"

N. S. DAVIS,	} Committee.
S. D. GROSS,	
GEO. C. BLACKMAN,	
F. DONALDSON.	

CHICAGO, Aug. 1st, 1867.

MEDICAL INSTITUTION OF YALE COLLEGE, }
New Haven, April 4, 1868.

N. S. DAVIS, M. D., Chairman of Committee of Medical Teachers' Convention:

DEAR SIR,—The Circular issued by your Committee, presenting to the Faculty of the College the several propositions adopted by the Convention of Medical Teachers, held last year at Cincinnati, and soliciting definite action thereon, to the end that they may be simultaneously and practically adopted throughout the whole country, has been fully considered by the Faculty; and the undersigned have been directed to transmit to your Committee the following reply. In doing so, however, we cannot neglect the opportunity of expressing, both for our colleagues and ourselves, our active sympathy with every well considered movement, having

- for its object the improvement of the profession ; and particularly the elevation of the standard of education, both general and professional, which is necessary to secure admission to its ranks ; and our high appreciation of the efforts of the gentlemen engaged in the recently renewed attempt to attain that object,—for it is a work that this College has, ever since its foundation, been actively engaged in.

The relations which this Institution sustains to the Connecticut Medical Society, by which it was originated, and to the State Legislature by which it was chartered and made one of the Departments of Yale College, are such that any radical change in its plans of instruction cannot be suddenly or easily effected.

This is not the first occasion on which this College has been solicited to change entirely its curriculum of study, as well as the prerequisites for graduation. More than forty years ago, as doubtless your Committee are aware, the Connecticut Medical Society sent representatives to a Convention of Delegates from Medical Societies and Colleges, held at Northampton pursuant to a call issued by the Medical Society of Vermont, for the purpose of devising plans for elevating the character of Medical Education. After discussing the various "subjects" which had been suggested by the circular of the Vermont Society, and such as were proposed by members of the Convention, certain regulations (twelve in number) were adopted, together with by-laws and resolves, providing for making known to the several Medical Colleges and Societies of the United States, the results of their deliberations, and for their ratification of them.

As your Committee are doubtless familiar with the proceedings of the Convention, it is unnecessary to do more than to allude to the very clear and forcible presentation of the arguments by which their propositions were enforced ; or to enter into a detailed statement of the changes proposed, further than to mention that "each candidate for a license to practice, or for the degree of Doctor of Medicine, was required to present satisfactory evidence that he had received from some respectable College, the degree of Bachelor of Arts ; or, that *previous to the commencement* of his professional studies, he had acquired a good English education, and such knowledge of the Latin language as to enable him to read with facility the *Æneid* of Virgil, and the Select Orations of Cicero ; and that he had also obtained a good acquaintance with the principles of Geometry and Natural Philosophy." Such stu-

dents as were regular graduates of Colleges, were required to study for *three* years, and attend two courses of public lectures; those who were not graduates of Colleges, were required to study *four* years.

The records of the Connecticut Medical Society show that it adopted, unanimously, the recommendations of the Convention; and entering, at once and heartily, into the movement to advance the standard of medical education, it procured, at some trouble, the necessary alterations of the laws of the State, and the charter of the Medical College, so as to conform them to the new system. The Faculty earnestly seconded these efforts, and their action was made to conform to the standard demanded by the Northampton Convention of 1827.

The new system was faithfully pursued by this College for three consecutive years, and until it became evident that the solemn compact was no longer regarded by the other Medical Colleges who had taken part in the Convention, or subsequently signed the agreement. One after another, they refused to be bound by their own regulations, until finally, this Institution, according to the traditions of the fathers, found itself standing alone—“*faithful among the faithless*”—in this combined effort to advance the true interests of Medical Education in the United States.

Seeing that her students were attracted away to other institutions, which practically ignored the new regulations, to which they had all pledged themselves, and finding that a longer perseverance in the extended course of instruction would not only injure the Institution, but fail to be of any benefit to the cause of medical education, the Connecticut Medical Society, in 1832—

Voted, “That the Committee on the term of study, report to the General Assembly a bill in due form, for an Act to alter the term of study, making the time required, the same as by the law in force previous to the Convention at Northampton in 1827.”

The bill, as presented, became a law the same year, and the term of study in this Institution has remained until the present time unchanged.

In regard to the first and *third* questions of the Circular, then, we are decided to answer them in the negative. In reply to the *second* question, we are convinced, that although the propositions of the Committee are in themselves unobjectionable, they are inadequate as a remedy for the great evils of the present system of education. The great salient evils of this system are, in our opin-

ion,—1st, The almost total absence of adequate *preparatory education* in the young men who enroll themselves as students of medicine.

2d. The fact, that the greater proportion of these receive no instruction whatever, worthy of the name, nor indeed accomplish any systematic study, in the proper sense of that term, *before* they listen to public lectures, if they ever do.

3d. Too great prominence is always given to public lectures, and too little to *daily text-book recitations*. Moreover, the student who comes fresh from the plough and the work-bench, with only the preparatory education that a district school affords, or the shrewdness acquired in some business pursuit, receives his degree after the same term of study as is required of the most thoroughly disciplined graduate of a University. Such a palpably absurd regulation as this, requires no comment.

In order to remedy, so far as its influence could reach, the *first* evil enumerated, the Connecticut Medical Society, many years ago, resolved in substance, that hereafter no young man should be received into the office of any of its members, as a student of medicine, until he had passed a satisfactory examination by his instructor and one of the Fellows of the Society, in the leading branches of English education, also in the Greek and Latin languages. In effect, very nearly the examination that was then required for admission to the Freshman Class in Yale College. This was placing the standard so far above the demands of other Colleges, and even of the profession in other States, that it soon became, and still remains, inoperative; although we think that at some future time it can properly be revived.

Third. The system of teaching medicine by daily text-book recitations and familiar lectures, combined with Hospital facilities, through a large part of the year, which, in addition to the courses of public lectures, is in successful operation in this College, we believe to be the only proper one, and that it ought to be generally adopted. No student should be graduated, *anywhere*, unless his studies have been systematically and faithfully pursued, under the direction of competent teachers. If students thus educated can only be admitted to graduation after three years of constant application, when ought those to graduate who read medicine as many do, without recitations of any kind, and with only nominal instruction?

It is not an extension of the lecture-term to six months, nor yet a great multiplication of the subjects of study, that can lessen the great evils that we all feel do exist. The only change that can reach them, is the absolute requirement of greater preparatory knowledge, and the adoption of the system of daily teaching in classes, in public institutions, instead of the loose and indefinite one that now so generally prevails in the offices of physicians.

As evidence, if any were needed, of our desire to advance, as far as practicable, the standard of medical education, we will mention the fact, already known to your Committee, that we have it in contemplation, at no distant day, to perfect plans already in process of completion, by which the Medical Sciences will be taught here, as the other sciences are taught, to graded classes, by daily text-book recitations and lectures, throughout the Academic year.

In a democratic country like ours, where educational interests are in no sense fostered or controlled by a central government, and where the quality of education, as of other things, is regulated by the public demands, the attempt to bring all Medical Colleges to adopt the same greatly advanced and prolonged course of study, and to compel all students to come up to that standard, *before the public mind is sufficiently educated to appreciate and demand it*, is in our judgment premature, and not likely to prove successful.

While, for these and other reasons, the Faculty deem it inexpedient to adopt, at present, the recommendations of the Convention, they will be prepared to give them a favorable consideration, and to adopt them, so far as our circumstances will allow, *when ever they are adopted, and faithfully adhered to, as the uniform and settled practice of the leading Medical Colleges of this country*. Appreciating fully your zeal and devotion in the cause of medical education, which we ourselves have so much at heart, and hoping to see the day when our ideal in this regard may be realized, we are, with great respect and esteem,

Respectfully yours.

S. G. HUBBARD, M. D.,
M. C. WHITE, M. D.,

Committee of the Faculty.

APPENDIX E.

Report of Delegate to New Jersey.

The undersigned, one of the delegates, appointed to attend the Convention of the Med. Soc. of N. J., would respectfully report, that he was present, accompanied by Dr. J. H. Beecher, at the 1st Annual Meeting on the 2d century of the existence of that Society.

On the arrival of your delegates, the convention was holding its sessions in the Common Council Chamber of the City of Newark. The civil authorities of which city, had not only freely tendered them accommodations, but had manifested so just and proper an appreciation of the valuable services of our profession to the public, that they were prompted to entertain them on the first evening of their assembling, with a most hospitable reception. It was not the good fortune of your delegates to be present on that occasion, nor to hear the address of the President, which is the first business of the Convention after its organization.

On the following morning, the delegation from this Society was most kindly welcomed and invited to participate in the discussions.

There were present also delegates from the corresponding Societies of Massachusetts and New York, and other gentlemen distinguished in our profession from other States. At the hour appointed, in the regular order of business, for the reception of delegates, the representatives of the different Societies were called upon in turn, and duly responded each in behalf of their own societies. During this hour, the interchange of good feeling and hearty encouragement of each other in advancing the interests of our profession, was one of the most pleasant features of the meeting.

The New Jersey Medical Society is the Senior organization in this country. In entering upon its 2d century, it obtained from the Legislature a new Charter, and under an improved reconstruction begins another centennial period with freshened vigor and renewed vitality. The long and honorable career of this most venerable association, is of itself, sufficient to engage the attention of its younger sisters, but when in entering upon another hundred years, it makes it the occasion to clothe with a new dress and new appointments the accumulated experience of the many generations through which it has existed, it gives an additional interest to observers.

It would reasonably be expected that in the new organization would be found the nearest approximation to a faultless system that such associations are susceptible of.

If the unflagging interest of the members in the proceedings of the Convention, during the long and uninterrupted session from 9 A. M. until 3 P. M., affords any evidence of success, your reporter begs leave to bear witness that they have attained it.

An important feature in the proceedings which I cannot refrain from mentioning as worthy of imitation in some degree in other Societies, is their "Standing Committee," the Chairman of which is required to report "the general state of health of the citizens of N. J., during the preceding year, the causes, nature and cure of epidemics, (if any have prevailed), curious medical facts, discoveries, and remarkable cases," in short, any and every thing possessing professional interest. And to promote this object it is made the duty of each district society, through a reporter, to furnish the Standing Committee with all the information which may present relative to these subjects within the bounds of the respective societies. In this manner, a most interesting and instructive annual record is kept of the medical history of the State.

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Your reporter would beg leave to suggest in this connection whether the repeated attempts to change some objectionable features of our system ought to be abandoned without one more effort.

Adjournment succeeded the election; immediately after which the whole Convention proceeded in a body to a neighboring hotel, where a dinner provided on a most liberal scale completed in a cheerful way the social enjoyment of the occasion, and where, after the cravings of the inner man had been satisfied with the substantial comforts of the table, the entertainment was prolonged for another hour or two by what the poet terms "the feast of reason and the flow of soul."

C. A. LINDSLEY.

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Resolved, (See Proceedings page 9), That the Clerks of the several County Meetings be required to send a Report of their County Meetings (Duties of Clerks, on page 20), to the Secretary of the Conn. Med. Society, *Before the first of May* in each year.

It was also

Voted, That the Secretary be directed to publish a *Programme of Arrangements* for the Annual Convention, and send a copy of the same to every member of the Society, with a special invitation to each member to be present at the Convention.

The Committee of Publication would respectfully suggest to the several County Meetings that the proper compliance with the above resolutions of the State Society by the Secretary, and by the County Clerks would be much facilitated if all the Annual County Meetings were held *before the middle of April* in each year, so as to give time for making out the reports in due season. By an alteration of the Charter, passed June 12, 1847, (see Proceedings for 1864, page 67), "the several County Meetings of the Connecticut Medical Society, may change the time of holding said meetings to such time as they may severally appoint."

Whereas, The Committee of Arrangements and Publication desire to examine all papers recommended for Publication and bring forward some of them to be read at the Convention, it is most earnestly requested that all members of the Conn. Med. Society, who prepare papers for publication, or to be read at the Annual Convention, should send them to the Secretary, or to some member of the Committee as early as possible, that the Committee may make out the Programme, which the Secretary is instructed to publish and distribute to *all members of the Society* before the Annual Convention.

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N. B. A few extra copies of the Proceedings are on sale at One Dollar per copy.

M. C. WHITE, *Secretary of the Conn. Med. Society.*
113 George Street, New Haven.

AMERICAN MEDICAL ASSOCIATION.

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Every member of a Medical Association is benefitted, more or less, by these labors, and *should* aid the Association by taking its published Transactions. Any one who will remit by mail Five Dollars to the subscriber, shall receive by return mail a receipt, and when the volume is published, it shall be delivered, free of expense, in Hartford, New Haven, or Meriden, as directed.

B. H. CATLIN, M. D.

WEST MERIDEN, June, 1868.

P. S.—The volume for 1868 is ready for the printer, and will be issued as soon as the funds are provided.

APPENDIX E.

Report of Delegate to New Jersey.

The undersigned, one of the delegates, appointed to attend the Convention of the Med. Soc. of N. J., would respectfully report, that he was present, accompanied by Dr. J. H. Beecher, at the 1st Annual Meeting on the 2d century of the existence of that Society.

On the arrival of your delegates, the convention was holding its sessions in the Common Council Chamber of the City of Newark. The civil authorities of which city, had not only freely tendered them accommodations, but had manifested so just and proper an appreciation of the valuable services of our profession to the public, that they were prompted to entertain them on the first evening of their assembling, with a most hospitable reception. It was not the good fortune of your delegates to be present on that occasion, nor to hear the address of the President, which is the first business of the Convention after its organization.

On the following morning, the delegation from this Society was most kindly welcomed and invited to participate in the discussions.

There were present also delegates from the corresponding Societies of Massachusetts and New York, and other gentlemen distinguished in our profession from other States. At the hour appointed, in the regular order of business, for the reception of delegates, the representatives of the different Societies were called upon in turn, and duly responded each in behalf of their own societies. During this hour, the interchange of good feeling and hearty encouragement of each other in advancing the interests of our profession, was one of the most pleasant features of the meeting.

The New Jersey Medical Society is the Senior organization in this country. In entering upon its 2d century, it obtained from the Legislature a new Charter, and under an improved reconstruction begins another centennial period with freshened vigor and renewed vitality. The long and honorable career of this most venerable association, is of itself, sufficient to engage the attention of its younger sisters, but when in entering upon another hundred years, it makes it the occasion to clothe with a new dress and new appointments the accumulated experience of the many generations through which it has existed, it gives an additional interest to observers.

It would reasonably be expected that in the new organization would be found the nearest approximation to a faultless system that such associations are susceptible of.

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The next Annual Convention will meet in the City of Hartford, at 11 A. M., the Fourth Wednesday in May, 1869, and will continue in Session two days.

The President appointed Irving W. Lyon, M. D., to fill the vacancy on the *Committee on Registration*.

The President appointed as *Committee on County Resolves*—Drs. J. G. Beckwith, A. Woodward and S. G. Risley. This Committee made a report recommending that the action of New Haven County Meeting, expelling W. B. Anderson, M. D., be confirmed. This Report was adopted.

The same Committee recommended that the action of New London County Meeting granting Dr. O. E. Miner, of Noank, honorable dismissal be approved. This report was also adopted.

The President appointed the following Committees, viz:

*Committee to Nominate Delegates to the American Medical Association*—Drs. A. Woodward, E. F. Parsons and E. A. Hill.

*Committee on Gratuitous Students*—Drs. S. S. Noyes, M. Storrs and S. G. Risley.

*Committee on Honorary Degrees and Honorary Membership*—Drs. J. G. Beckwith, J. M. Aimes and A. B. Worthington.

*Committee on Dissertator*—Drs. H. M. Knight and Lewis Richards.

The Treasurer then presented reports for the year 1868 and for the year 1869.

*Abstract of Treasurer's Report.\**

|                 |                                                   |          |            |
|-----------------|---------------------------------------------------|----------|------------|
| May 23, 1867.   | Cash in Treasury.....                             | \$732.76 |            |
| May, 1868.      | Cash collected during the year.....               | 337.00   |            |
|                 |                                                   |          | \$1,069.76 |
| June 10, 1867.  | Paid Expenses of Convention.....                  | \$ 10.60 |            |
| Sept. 10, 1867. | Paid Printing Proceedings for 1867.....           | 140.58   |            |
| Sept. 10, 1867. | Paid Postage on Proceedings.....                  | 8.42     |            |
| May 23, 1867.   | Paid Advertising Prize Questions.....             | 25.00    |            |
|                 |                                                   |          | \$184.60   |
| May 27, 1868.   | Balance in Treasury.....                          | \$885.16 |            |
| May 25, 1869.   | Received from County Clerks, during the year..... | 454.90   |            |
|                 |                                                   |          | \$1,340.06 |
| July 8, 1868.   | Secretary's Bill Expenses of Convention of 1868.. | \$ 12.00 |            |
| May 27, 1868.   | Paid to Committee on Russell & Jewett Prizes..    | 450.00   |            |
| August, 1868.   | Publishing Proceedings for 1868.....              | 465.90   |            |
| August, 1868.   | Postage paid on Proceedings.....                  | 25.00    |            |
|                 | Express, Stationery and Postage for Treasurer..   | 1.82     |            |
| May 25, 1869.   | Treasurer's Salary for two years.....             | 20.00    | 974.72     |
| May 25, 1869.   | Balance in Treasury.....                          |          | \$365.34   |

\* Compiled by the Secretary.

|                                                               |                 |
|---------------------------------------------------------------|-----------------|
| May 25, 1869. Balance in Treasury carried to new account..... | \$365.34        |
| Due from Clerks.....                                          | \$1,727.79      |
| Deduct three-fourths for abatements, &c.....                  | 1,295.84        |
|                                                               | <u>431.95</u>   |
| Leaves a total of cash and due from Clerks....                | <u>\$797.29</u> |
| The Society owes for Debentures outstanding.....              | <u>\$184.87</u> |
| Leaving a Balance in favor of the Society.....                | <u>\$612.42</u> |

These Reports were referred to an Auditing Committee appointed by the President, viz: Drs. Francis Bacon and W. S. Munger.

The Secretary of the Convention then stated that the Committee of Examination had placed in his hands their Annual Report, (See Appendix A.) From this Report it appeared that at the Examination for the Degree of M. D., held in January, 1869, at the Medical Institution of Yale College, Luther Hodges Wood, Ph.B., had presented a Thesis entitled "*Researches on the Influence of Mental Activity upon the Excretion of Phosphoric Acid by the Kidneys.*" To the Author of this thesis, had been awarded the Silliman Prize of Fifty Dollars, and the Committee of Examination had unanimously recommended that the Thesis should be published in the Proceedings of the Connecticut Medical Society.

On motion of Dr. White, it was voted that an abstract of the Thesis in question be read in Convention at 4 P. M.

On motion, the Report of the Committee without further reading, was referred to the Committee of Publication.

Adjourned to meet at 3 P. M.

#### *Afternoon Session.*

The Convention reassembled at 3 P. M. The President, Henry Bronson, M. D., in the chair.

The Committee of Publication reported the papers received and the arrangements for the literary exercises of the Convention, which were approved.

The Committee on Gratuitous Students made their report, which was adopted. [Persons interested in this report will receive all necessary information from the Secretary.]

On recommendation of the Committee, Lucian S. Wilcox, M. D., was appointed Dissertator for the ensuing year, and Prof. Francis Bacon, M. D., was appointed Alternate.

The following gentlemen, who were nominated last year, were

unanimously elected Honorary Members, viz : William McCullom, M. D., J. C. Hutchinson, M. D., and Benjamin Cotting, M. D.

On motion of Dr. Hutchins, of Windham County,

*Voted*, That the amount of \$5.37 due Samuel Bowen on a Debenture bill, which has become outlawed, be paid by the Clerk of Windham County ; also

*Voted*, That a Debenture bill of \$9.30 due to Dr. D. C. Lathrop, be paid by the Clerk of Windham County, *on presentation ; if not outlawed.\**

The Committee on New Organization (appointed last year) reported a new form of Charter, and a complete set of By-Laws, some of which are new. The Chairman of the Committee, Dr. C. A. Lindsley, accompanied the Report with an address explaining the reasons for the various changes introduced. (See Appendix B.)

On motion the Report of the Committee on New Organization was laid on the table. By request of the Committee of Arrangements, Prof. George F. Barker, M. D., was called upon to read an abstract of the Silliman Prize Thesis by Luther Hodges Wood, Ph.B., M. D.

Prof. Barker introduced the paper by some introductory remarks on the general subject, showing that the writer had made investigations of great importance, in an almost entirely new field of Physiological research. The Professor then read an abstract of the paper in question, entitled "*Researches upon the Influence of Mental Activity upon the Excretion of Phosphoric Acid by the Kidneys.*"

Dr. White, in behalf of the Committee of Publication, reported the probable expense of printing the paper in the Transactions.

On motion of Dr. White, it was unanimously

*Voted*, That the Thesis of Dr. Wood, of which an abstract has just been read by Prof. Barker, be published in the Transactions of the Society.

The consideration of the Report on New Organization was then resumed, and after considerable discussion the proposed Charter was amended by inserting Section 7 of the present Charter.

It was then,

*Voted*, That the proposed Charter, as amended and approved by this Convention, be referred to the several County Meetings, to be approved or disapproved as a whole, by a vote of yes or no—

---

\* The words in Italics were added to the resolutions on reconsideration at a subsequent stage of the proceedings.

County Meetings approving said proposed Charter to vote *Yes*. Those disapproving to vote *No*. The votes of the County Meetings to be reported by the Clerks to the Secretary of this Convention.

The proposed Charter as submitted to the several County Meetings, will be found in Appendix B, page 65.

On motion, it was further voted to submit the entire list of proposed By-Laws to the consideration of the County Meetings, that the Fellows elected next year, may come to the next Convention, prepared to represent the views of their constituents in regard to the adoption of the new By-Laws.

Dr. L. S. Wilcox, on behalf of the Hartford City Medical Association, invited the President and Fellows, Delegates from other Societies, and all Physicians attending the Convention, to partake of a supper at 9 o'clock this evening, at the United States Hotel.

The Auditing Committee reported the accounts of the Treasurer to be correct. The Report was approved by the Convention.

Adjourned to meet at 7½ P. M. to hear the Annual Address of the retiring President.

### *Evening Session.*

7½ P. M. The Convention met according to adjournment. The President and Vice President being absent, the meeting was called to order by the Secretary, and Dr. J. G. Beckwith was elected Chairman.

The Annual Address was then delivered by the retiring President, S. B. Beresford, M. D., of Hartford. The subject of the Address was "The Abuse of Tobacco, and its effects upon Health."

*Voted*, That the thanks of the Convention be tendered to Dr. Beresford, the retiring President, for his able and interesting Address, and that a copy be requested for publication in the Proceedings of the Convention.

Adjourned to 8 A. M. Thursday.

The members of the Convention and invited guests then repaired to the United States Hotel, where they were cordially received by the Hartford Association.

Dr. Lucien S. Wilcox, President of the Association, made the following Address of Welcome:

*Gentlemen of the State Medical Society, and our Distinguished Guests:—*

The Hartford City Medical Society offers you this entertainment, and bids you welcome. We have seen you toiling through the heat and dust of the day, and now at night-fall we pray you turn in at the door of our tent, lay off your san-



dals and tarry with us, while we bake the cakes for you and slay the kid. Some of you—possibly many—in your extensive reading—(it was before you read medicine)—remember that in the old primeval story of the patriarchs, the successful and prominent men of those times had wiped the sweat from their brows, and partaken of their lentils, and were sitting in their tent-doors, at the going down of the sun, and that at that auspicious and eventful hour, God's angels appeared unto them. You remember, too, that one luckless fellow, benighted traveler that he was, as a penalty for his late work, saw from his stony-pillow, his angels coming and going, not in airy form on wings, but climbing wearily up the skies, by the brick and mortar thoroughfare.

The centuries have not made this lesson old. It comes down to us fragrant with the cedars of Lebanon, and strikes our ears in the warning voices of Sarah and Rachel. Let not our toil and care reach the vespers, if we would have our evening incense reach Heaven.

Here to-night, gentlemen, we are a thousand miles away from the scenes of our labors, and if it were about a thousand years since any of us wrote a prescription, as a natural consequence, our patients have all long since recovered, and it is no secret to us, that they will continue in good and perfect health, so long as they let the doctors alone. So don't let the corners of the mouth drop down, nor the lines of the face incline to a perpendicular, nor the eyes roll upward till the whites show, but let all dilatations of the facial muscles be in horizontals, and let there be heard from all these tables, from all sides, long, loud, liver-laming laughter.

Gentlemen, our "spare feast, a radish and an egg," is before you.

A blessing was here invoked by Rev. W. L. Gage, after which the dinner followed. After partaking of a bountiful repast, the following toasts were offered and responded to :

"Our Commonwealth—She is not yet in the current of 'National Degeneracy' " —Responded to by Governor Jewell and Lieutenant-Governor Wayland. Mr. Wayland, in closing, proposed the following: "The Medical Corps, (to be pronounced as spelled) its prescriptions are wisely couched in a *dead* language;" "The Model Medical Practitioner: Allopathic as to his pills—Homeopathic as to his bills."

"Our Retiring President—He floats away gracefully amidst the smoky folds of old Virginia weed." Responded to by Dr. Beresford.

"Our Colleges—They exercise a wholesome and conservative influence upon the extreme and ultra practicality of modern education." Responded to by President Jackson, of Trinity College, and Professors Barker and Lindsley, of Yale College.

"Theology and Medicine—Handmaids in the restoration of God's best image to man." Responded to by the Rev. Mr. Gage.

"The Societies of other States—We are with them in purpose, in work and in sympathy." Responded to by Dr. Hubbard, of New York, and Professor Scott, of Montreal.

"Life Insurance—A most worthy posthumous work, possible to all men." Responded to by James G. Batterson, President of the Travelers' Insurance Company, and Mr. Bryant, Actuary of the Connecticut Mutual Life.

"Law and Medicine—Their relationship not particularly manifest." Responded to by the Hon. H. K. W. Welch.

"Our Legislature—Its liberal and intelligent endowments to charitable institutions, are its immortal part." Responded to by the Hon. David Gallup, the Hon. W. W. Welch and Dr. Beckwith.

*Thursday, May 27th.*

At 8 A. M., the Convention was called to order by the Vice President, C. F. Sumner, M. D.

The Committee on Honorary Degrees and Honorary Membership made their report. Proposing as candidates for Honorary Membership, Henry L. Bowditch, M. D., of Boston; Seth Shove, M. D., of New York City; Samuel T. Hubbard, M. D., of New York City. For the Honorary Degree of Doctor of Medicine, N. D. Haight, of Stamford.

By the rules of the Society, all these nominations lie over one year.

The President, Henry Bronson, M. D., arrived and took the Chair.

The Committee on Delegates to the American Medical Association and to other Medical Societies, made their report, which was adopted, as follows:

Delegates to the American Medical Association, S. B. Beresford, M. D., of Hartford; Ashbel Woodward, M. D., of Franklin; Henry Bronson, M. D., of New Haven; Gideon L. Platt, M. D., of Waterbury; Charles Woodward, M. D., of Middletown.

To the Maine Medical Association, Lewis Williams, M. D., of Pomfret; Charles M. Carleton, M. D., of Norwich.

To the New Hampshire Medical Society, J. C. Jackson, M. D., of Hartford; J. K. Mason, M. D., of Suffield.

To the Vermont Medical Society, H. M. Knight, M. D., of Lakeville; S. G. Risley, M. D., of Rockville.

To the Massachusetts Medical Society, Isaac G. Porter, M. D., of New London; Seth M. Childs, M. D., of East Hartford.

To the Rhode Island Medical Society, E. A. Hill, M. D., of East Killingly; Wm. H. Cogswell, M. D., of Plainfield.

To New York State Medical Society, Moses C. White, M. D., of New Haven; Irving W. Lyon, M. D., of Hartford; B. H. Catlin, M. D., of West Meriden; E. B. Nye, M. D., of Middletown; S. Hutchins, M. D., of West Killingly; S. S. Noyes, M. D., of New Canaan.

To the New Jersey Medical Society, C. A. Lindsley, M. D., of New Haven; G. W. Burke, M. D., of Middletown.

To the Pennsylvania Medical Society, S. G. Hubbard, M. D., of New Haven; A. B. Haile, M. D., of Norwich; Wm. Wood, M. D., of East Windsor.

By recommendation of the Committee, it was

*Voted*, That Delegates to the American Medical Association, and to other Societies, have power to appoint substitutes, who may apply to the Secretary for credentials.

On motion of Dr. Beckwith, it was unanimously

*Resolved*, That the thanks of this Convention are eminently due and are hereby tendered to the Hartford Medical Association, for the very convenient room furnished for the sessions of the Convention, and for the sumptuous entertainment provided last evening at the United States Hotel.

The Secretary read a communication from E. P. Allen, M. D., of Athens, Pa., stating that he had been appointed a Delegate to the Connecticut Medical Society, from the Pennsylvania Medical Society, and that he had intended to be present at this Convention, but that unexpected engagements detained him at home. Dr. Allen tendered the fraternal greetings of the Pennsylvania Medical Society, with their best wishes for the continued usefulness of their sister Society in the alleviation of human suffering.

The Convention responded to the letter from Pennsylvania, by appointing Delegates to visit the Pennsylvania Medical Society, as stated in the above report on Delegates to other Societies.

*Voted*, That the *Annual Tax* be *Two Dollars*, payable June 1, 1869.

*Voted*, That 625 copies of the Proceedings for this year be published.

*Voted*, That the next Convention meet in New Haven, at 3 P. M., the fourth Wednesday in May, 1870.

The names of members of the Society who had died during the past year were read by the Secretary. See page 55.

By invitation, Dr. M. G. Echeverria read a report of a case of excision of a portion of the ulnar nerve, for the cure of a case of epilepsy. The treatment was successful. The thanks of the Convention were tendered to Dr. Echeverria, for his interesting paper.

Dr. S. G. Risley read a report of several cases of poisoning by the use of water colors. On motion, it was

*Voted* to publish the paper in the Transactions of the Convention.

*Voted*, That the Report of the Committee on New Organization, together with the Proposed Charter and By-Laws be published in the Proceedings of the Convention.

Dr. Geo. A. Ward read a paper on the Use of Veratrum Viride, which had been previously read at the New Haven County Meeting.

Dr. White read a paper on Vital Force, which had also been read at the New Haven County Meeting.

Dr. Charles M. Carleton, of Norwich, read the Annual Dissertation, on the "Use and Abuse of Spectacles."

The thanks of the Convention were tendered to Dr. Carleton, for his valuable paper, and a copy was requested for publication.

The Treasurer, Dr. J. C. Jackson, made some statements in regard to the difficulty of keeping accounts of debentures and unpaid taxes with ex-clerks.

On motion of Dr. White, it was

*Voted*, That Doctors Jackson and Hastings be a Committee to investigate the subject of finances, and the method of keeping the accounts of the Society, and to report to the next Convention.

On motion, the Convention adjourned.

Attest,

MOSES C. WHITE, *Secretary*.

OFFICERS OF THE SOCIETY,  
FOR 1869--70.

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PRESIDENT,  
HENRY BRONSON, M. D., OF NEW HAVEN.

VICE-PRESIDENT,  
CHARLES F. SUMNER, M. D., OF BOLTON.

TREASURER,  
JAMES C. JACKSON, M. D., OF HARTFORD.

SECRETARY,  
MOSES C. WHITE, M. D., OF NEW HAVEN.

**STANDING COMMITTEES.**

*Committee of Examination.*

HENRY BRONSON, M. D., *Ex-officio*.  
D. H. HUBBARD, M. D.  
LEWIS WILLIAMS, M. D.  
IRA GREGORY, M. D.  
H. W. E. MATTHEWS, M. D.  
C. F. SUMNER, M. D.  
ASHBEL WOODWARD, M. D.  
LUCIAN S. WILCOX, M. D.

*Committee to Nominate Professors in the Medical Institution of  
Yale College.*

L. S. PADDOCK, M. D.  
HENRY PIERPONT, M. D.  
H. P. STEARNS, M. D.  
ROBERT HUBBARD, M. D.  
STEPHEN G. RISLEY, M. D.

*Committee to Nominate Physician to the Retreat for the Insane.*

ELISHA B. NYE, M. D.  
 JAMES C. JACKSON, M. D.  
 ISAAC G. PORTER, M. D.  
 SAMUEL HUTCHINS, M. D.  
 H. M. KNIGHT, M. D.

*Committee of Publication.*

MOSES C. WHITE, M. D., *Ex-officio*.  
 G. W. RUSSELL, M. D.  
 L. J. SANFORD, M. D.  
 HENRY BRONSON, M. D.  
 ALVAN TALCOTT, M. D.

*Committee on Registration.*

H. W. E. MATTHEWS, M. D.  
 S. G. HUBBARD, M. D.  
 IRVING W. LYON, M. D.

*Dissertator*—LUCIAN S. WILCOX, M. D.  
*Alternate*—FRANCIS BACON, M. D.

# MEMBERS OF THE SOCIETY.

## HONORARY MEMBERS.

|                         |           |                       |
|-------------------------|-----------|-----------------------|
| *FELIX PASCALIS,        | - - - - - | New York City.        |
| JAMES JACKSON,          | - - - - - | Boston, Mass.         |
| *JOHN C. WARREN,        | - - - - - | Boston, Mass.         |
| *SAMUEL L. MITCHELL,    | - - - - - | New York City.        |
| *DAVID HOSACK,          | - - - - - | New York City.        |
| *WRIGHT POST,           | - - - - - | New York City.        |
| *BENJAMIN SILLIMAN,     | - - - - - | New Haven.            |
| *GEORGE M'CLELLAN,      | - - - - - | Philadelphia, Pa.     |
| *JOHN MACKIE,           | - - - - - | Providence, R. I.     |
| *CHARLES ELDREDGE,      | - - - - - | East Greenwich, R. I. |
| *THEODORIC ROMEYN BECK, | - - - - - | Albany, N. Y.         |
| *JAMES THACHER,         | - - - - - | Plymouth, Mass.       |
| EDWARD DELAFIELD,       | - - - - - | New York City.        |
| JOHN DELAMATER,         | - - - - - | Cleveland, O.         |
| *WILLIAM P. DEWEES,     | - - - - - | Philadelphia, Pa.     |
| *JOSEPH WHITE,          | - - - - - | Cherry Valley, N. Y.  |
| JACOB BIGELOW,          | - - - - - | Boston, Mass.         |
| WALTER CHANNING,        | - - - - - | Boston, Mass.         |
| *PHILIP SYNG PHYSIC,    | - - - - - | Philadelphia, Pa.     |
| *LEWIS HEERMAN,         | - - - - - | U. S. Navy.           |
| *DANIEL DRAKE,          | - - - - - | Cincinnati, O.        |
| *HENRY MITCHELL,        | - - - - - | Norwich, N. Y.        |
| NATHAN RYNO SMITH,      | - - - - - | Baltimore, Md.        |
| *VALENTINE MOTT,        | - - - - - | New York City.        |
| *SAMUEL WHITE,          | - - - - - | Hudson, N. Y.         |
| *REUBEN D. MUSSEY,      | - - - - - | Cincinnati, O.        |
| *WILLIAM TULLY,         | - - - - - | Springfield, Mass.    |
| RICHMOND BROWNELL,      | - - - - - | Providence, R. I.     |
| *WILLIAM BEAUMONT,      | - - - - - | St. Louis, Mo.        |
| SAMUEL HENRY DICKSON,   | - - - - - | Philadelphia, Pa.     |
| *SAMUEL B. WOODWARD,    | - - - - - | Northampton, Mass.    |
| *JOHN STEARNS,          | - - - - - | New York City.        |
| *STEPHEN W. WILLIAMS,   | - - - - - | Deerfield, Mass.      |
| *HENRY GREEN,           | - - - - - | Albany, N. Y.         |
| *GEORGE FROST,          | - - - - - | Springfield, Mass.    |
| WILLARD PARKER,         | - - - - - | New York City.        |
| *BENAJAH TICKNOR,       | - - - - - | U. S. Navy.           |
| ALDEN MARCH,            | - - - - - | Albany, N. Y.         |
| *AMOS TWITCHELL,        | - - - - - | Keene, N. H.          |
| CHARLES A. LEE,         | - - - - - | New York City.        |
| *DAVID S. C. H. SMITH,  | - - - - - | Providence, R. I.     |

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\* Deceased.

|                                   |                    |
|-----------------------------------|--------------------|
| *JAMES M. SMITH, - - - - -        | Springfield, Mass. |
| HENRY D. BULKLEY, - - - - -       | New York City.     |
| J. MARION SYMS, - - - - -         | New York City.     |
| *JOHN WATSON, - - - - -           | New York City.     |
| FRANK H. HAMILTON, - - - - -      | Brooklyn, L. I.    |
| *ROBERT WATTS, - - - - -          | New York City.*    |
| J. V. C. SMITH, - - - - -         | New York City.     |
| O. WENDELL HOLMES, - - - - -      | Boston, Mass.      |
| JOSEPH SARGENT, - - - - -         | Worcester, Mass.   |
| *MASON F. COGSWELL, - - - - -     | Albany, N. Y.      |
| FOSTER HOOPER, - - - - -          | Fall River, Mass.  |
| *THOMAS C. BRINSMADE, - - - - -   | Troy, N. Y.        |
| GEORGE CHANDLER, - - - - -        | Worcester, Mass.   |
| GILMAN KIMBALL, - - - - -         | Lowell, Mass.      |
| JAMES McNAUGHTON, - - - - -       | Albany, N. Y.      |
| *USHER PARSONS, - - - - -         | Providence, R. I.  |
| *S. D. WILLARD, - - - - -         | Albany, N. Y.      |
| *JOHN WARE, - - - - -             | Boston, Mass.      |
| EBENEZER ALDEN, - - - - -         | Randolph, Mass.    |
| B. FORDYCE BARKER, - - - - -      | New York City.     |
| JOHN G. ADAMS, - - - - -          | New York City.     |
| JARED LINSLEY, - - - - -          | New York City.     |
| A. J. FULLER, - - - - -           | Bath, Me.          |
| SAMUEL H. PENNINGTON, - - - - -   | Newark, N. J.      |
| FREDERICK N. BENNETT, - - - - -   | Orange, N. J.      |
| *THOMAS W. BLATCHFORD, - - - - -  | Troy, N. Y.        |
| THOMAS C. FINNELL, - - - - -      | New York City.     |
| N. C. HUSTED, - - - - -           | New York City.     |
| JACOB P. WHITTEMORE, - - - - -    | Chester, N. H.     |
| JOHN GREEN, - - - - -             | Worcester, Mass.   |
| THOMAS SANBORN, - - - - -         | Newport, N. H.     |
| WILLIAM PIERSON, - - - - -        | Orange, N. J.      |
| ARTHUR WARD, - - - - -            | Belleville, N. J.  |
| HIRAM CORLISS, - - - - -          | Washington, N. Y.  |
| E. K. WEBSTER, M. D., - - - - -   | Boscawen, N. H.    |
| P. A. STACKPOLE, M. D., - - - - - | Dover, N. H.       |
| S. F. L. SIMPSON, - - - - -       | Concord, N. H.     |
| A. T. WOODWARD, - - - - -         | Vt.                |
| WM. McCULLOM, - - - - -           | Vt.                |
| J. C. HUTCHINSON, - - - - -       | Brooklyn, N. Y.    |
| BENJ. E. COTTING, - - - - -       | Boston, Mass.      |

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PROPOSED FOR HONORARY MEMBERSHIP.

|                                     |                |
|-------------------------------------|----------------|
| HENRY L. BOWDITCH, M. D., - - - - - | Boston, Mass.  |
| SETH SHOVE, M. D., - - - - -        | New York City. |
| SAMUEL T. HUBBARD, M. D., - - - - - | New York City. |

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\*Deceased.



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## ORDINARY MEMBERS.

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*The names of those who have been Presidents are in Capitals.*

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### HARTFORD COUNTY.

S. L. CHILDS, M. D., of East Hartford, Chairman.

IRVING W. LYON, of Hartford, Clerk.

|                                        |                                         |
|----------------------------------------|-----------------------------------------|
| HARTFORD, Henry Holmes, S. B. BER-     | ENFIELD, Thompsonville, Edward F. Par-  |
| ESFORD, G. B. Hawley, G. W. Russell,   | sons, Roland L. Strickland.             |
| David Crary, P. W. Ellsworth, E. K.    | FARMINGTON, Frank Wheeler, Charles      |
| HUNT, J. S. Butler,* J. C. Jackson,    | Carrington.                             |
| A. W. Barrows, Thomas Miner,* Wil-     | Plainville, G. A. Moody.                |
| liam Porter, John F. Wells, William R. | GRANBY, (North,) Francis F. Allen.*     |
| Brownell, P. M. Hastings, Edward       | GLASTENBURY, H. C. Bunce.               |
| Brinley, W. H. Tremaine, Lucian S.     | South Glastenbury, C. E. Hammond, G.    |
| Wilcox, Henry P. Stearns, S. C. Pres-  | A. Hubbard.                             |
| ton, Irving W. Lyon, Daniel Poll, Mel- | MANCHESTER, William Scott.*             |
| ancthon Storrs, Horace S. Fuller, John | NEW BRITAIN, B. N. Comings, S. W. Hart, |
| O'Flaherty, Nathan Mayer, Wm. M.       | Geo. Clary, C. R. Hart, E. B. Lyon, J.  |
| Hudson, George C. Jarvis, Morton W.    | S. Stone.                               |
| Easton, W. A. M. Wainwright, E. M.     | ROCKY HILL, R. W. Griswood.             |
| Dunbar, David Crary, Jr., George F.    | SIMSBURY, Tariffville, G. W. Sanford.   |
| Hawley.                                | Westogue, R. A. White.                  |
| BERLIN, E. Brandegee.                  | SOUTHINGTON, Julius S. Barnes,* N. H.   |
| BLOOMFIELD, Henry Gray.                | Byington, F. A. Hart.                   |
| BROADBROOK, E. R. Leonard.*            | SUFFIELD, Aretus Rising,* J. K. Mason.  |
| CANTON, Collinsville, R. H. Tiffany.   | WEST GRANBY, Justus D. Wilcox.*         |
| EAST GRANBY, Chester Hamlin.*          | WEST HARTFORD, Edward Brace.*           |
| EAST HARTFORD, S. L. Childs, Edward R. | WETHERSFIELD, E. F. Cook,* A. S. War-   |
| Brownell.                              | ner.                                    |
| EAST WINDSOR HILL, Sidney W. Rock-     | WINDSOR, A. Morrison, S. A. Wilson.     |
| well, William Wood.                    |                                         |
| Warehouse Point, Marcus L. Fisk.       |                                         |

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\* Over sixty years of age.

## NEW HAVEN COUNTY.

B. H. CATLIN, M. D., of West Meriden, Chairman.

EDWARD BULKLEY, M. D., of New Haven, Clerk.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NEW HAVEN, Samuel Punderson,* A. S. Monson,* NATHAN B. IVES,* E. H. Bishop,* Levi Ives, P. A. Jewett, David L. Daggett, George O. Sumner,* David A. Tyler, HENRY BRONSON,* E. A. Park, S. G. Hubbard, H. W. E. Matthews, C. A. Lindsley, T. H. Totton, John Nicoll, Moses C. White, H. Pierpoint, J. H. Beecher, Leonard J. Sanford, Chas. L. Ives, Edward Bulkley, W. B. De Forest,* F. L. Dibble, T. Beers Townsend, Geo. A. Ward, Evelyn L. Bissell, T. H. Bishop, Eli W. Blake, Henry A. Du Bois, Francis Bacon, C. O. Stockman, J. W. Barker, Charles A. Gallagher, Robert Stone, W. Lockwood Bradley, A. E. Winchell, O. F. Treadwell, H. Carrington, George F. Barker, O. W. Peck, L. M. Gilbert, J. W. Terry, George R. Shepherd, Robert S. Ives, F. J. Whittemore, Arthur Ruckholt, P. Essroger, Leopold Spier. | DERBY, Charles H. Pinney. Birmingham, Ambrose Beardsley. Ansonia, C. W. Sheffrey. GUILFORD, Joel Canfield,* Alvan Talcott. HAMDEN, Edwin D. Swift. MADISON, D. M. Webb. MERIDEN, (West), B. H. CATLIN, Asa H. Churchill, James G. Bacon, Jas. J. Averill, Frederick J. Fitch. MILFORD, Hull Allen,* L. N. Beardsley. Thomas Dutton. NAUGATUOK, J. D. Mears,* S. C. Bartlett, Frank G. Tuttle. NORTH BRANFORD, Sheldon Beardsley.* NORTH HAVEN, R. F. Stillman. ORANGE, West Haven, J. Martin Aimes, J. W. Henry. OXFORD, Lewis Barnes. SEYMOUR, Thos Stoddard, S. C. Johnson. Joshua Kendall. SOUTHBURY, A. B. Burritt.* South Britain, L. C. Baldwin. WALLINGFORD, Nehemiah Banks, B. F. Harrison. WATERBURY, G. L. Platt, John Deacon, George E. Perkins, Philo G. Rockwell, Thos. Dougherty, Alfred North, Edward L. Griggs. |
| Fair Haven, Chas. S. Thomson,* W. H. Thomson, Wm. M. White.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| BRANFORD, H. V. C. Holcomb, Newton B. Hall.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| CHESHIRE, A. J. Driggs, M. N. Chamberlin.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## NEW LONDON COUNTY.

ISAAC G. PORTER, M. D., of New London, Chairman.

ALBERT T. CHAPMAN, M. D., of Mystic, Clerk.

|                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NEW LONDON, Nathaniel S. Perkins,* ISAAC G. PORTER,* D. P. Francis, Robert A. Manwaring, Robert McCurdy Lord, A. W. Nelson, F. W. Brannon. NORWICH, Richard P. Tracy,* Elijah Dyer,* Elisha Phinney,* A. B. Haile, Lewis S. Paddock, Chas. M. Carleton, F. S. Abbott. BOZRAH, Samuel Johnson * COLCHESTER, Ezekiel W. Parsons,* Frederick Morgan.* | FRANKLIN, ASHBEL WOODWARD. Greenville, Wm. Witter. GROTON, Mystic River, A. W. Coates, John Gray. LEBANON, Ralph E. Green.* MYSTIC, Mason Manning,* Albert T. Chapman. OLD LYME, Richard Noyes.* PRESTON, Eleazer B. Downing.* STONINGTON, William Hyde.* Mystic Bridge, E. Frank Coates. |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

\* Over sixty years of age.

## FAIRFIELD COUNTY.

SAMUEL S. NOYES, M. D., of New Canaan, Chariman.

GEORGE L. BEERS, M. D., of Bridgeport, Clerk.

|                                         |                                                                       |
|-----------------------------------------|-----------------------------------------------------------------------|
| Greenfield, Rufus Blakeman.*            | NORWALK, John A. McLean,* Ira Gregory,* Samuel Lynes, John W. McLean, |
| Southport, Justus Sherwood.*            | James E. Barbour, W. A. Lockwood.                                     |
| BRIDGEPORT, William B. Nash,* David     | South Norwalk, M. B. Pardee, R. L. Higgins.                           |
| H. Nash, Robert Hubbard, H. L. W.       | RIDGEFIELD, O. S. Hickok.                                             |
| Burritt, Elijah Gregory, Geo. L. Beers, | STAMFORD, N. D. Haight,* W. H. Trow-                                  |
| Andrew J. Smith, Augustus H. Aber-      | bridge, James H. Hoyt.                                                |
| nethy, George F. Lewis, James R.        | North Stamford, Geo. W. Birch.                                        |
| Cumming, Gustave Ohnesorg.              | STRATFORD, Roger M. Gray, R. C. Mc-                                   |
| BROOKFIELD, A. L. Williams.             | Ewen.                                                                 |
| DANBURY, E. P. Bennett.* James Bald-    | TRUMBULL, George Dyer.*                                               |
| win,* William C. Bennett.               | WESTPORT, George Blackman,* George                                    |
| BETHEL, William H. Mather.              | B. Bouton.                                                            |
| DARIEN, Samuel Sands.                   | WILTON, A. E. Emery.                                                  |
| EASTON, Waite R. Griswold.              |                                                                       |
| NEW CANAAN, Samuel S. Noyes,* Lewis     |                                                                       |
| Richards,* William B. Brownson.         |                                                                       |

## WINDHAM COUNTY.

HARVEY CAMPBELL, M. D., of Voluntown, Chairman.

SAMUEL HUTCHINS, M. D., of West Killingly, Clerk.

|                                        |                                     |
|----------------------------------------|-------------------------------------|
| WINDHAM, Chester Hunt,* E. Hunting-    | SCOTLAND, Calvin B. Bromley.        |
| ton.                                   | PLAINFIELD, Moosup, Wm. A. Lewis,   |
| ASHFORD, John H. Simmons.              | Chas. H. Rogers.                    |
| BROOKLYN, James B. Whitcomb,* Wm.      | THOMPSON, Lowell Holbrook, Charles  |
| Woodbridge.                            | Hosford.                            |
| CANTERBURY, Joseph Palmer.             | VOLUNTOWN, Harvey Campbell.*        |
| HAMPTON, Dyer Hughes.*                 | WESTFORD, Farnam O. Bennett.        |
| KILLINGLY, Justin Hammond.*            | WOODSTOCK, Lorenzo Marcy.*          |
| South Killingly, Daniel A. Hovey.*     | East Woodstock, John Witter.        |
| West Killingly, Samuel Hutchins, Frank | West Woodstock, Milton Bradford.    |
| A. Tillinghast.                        | WINDHAM, Willimantic, Fred. Rogers, |
| East Killingly, Edwin A. Hill.         | T. Morton Hills, Horace E. Balcom,  |
| PLAINFIELD, WM. H. COGSWELL.*          | L. F. Bugbee.                       |
| POMFRET, Hiram Holt,* Lewis Williams.  |                                     |
| PUTNAM, H. W. Hough, Daniel B. Plym-   |                                     |
| ton.                                   |                                     |

\* Over sixty years of age.

## LITCHFIELD COUNTY.

FRANCIS J. YOUNG, M. D., of Riverton, Chairman.

GEORGE W. BELL, M. D., of Litchfield, Clerk.

|                                           |                                         |
|-------------------------------------------|-----------------------------------------|
| LITCHFIELD, Josiah G. Beckwith,*          | H. M. Knight.                           |
| W. Bull, D. E. Bostwick, Geo. W. Bell.    | SHARON, Ralph Deming,*                  |
| Northfield, D. B. W. Camp.*               | William W. Knight.                      |
| BAKHAMSTED, Riverton, Francis J. Young.   | TORRINGTON, Erastus Bancroft.*          |
| CORNWALL, Burrill B. North.*              | Wolcottville, Jeremiah W. Phelps, H. S. |
| (West Cornwall), Edward Sanford.          | Hanchett, A. E. Barber.                 |
| MORRIS, Garry H. Miner.*                  | WARREN, John B. Derickson.              |
| NEW MILFORD, J. K. Bacon.                 | WASHINGTON, Remus M. Fowler.*           |
| Gaylord's Bridge, G. H. St. John.*        | New Preston, Sidney H. Lyman, Edward    |
| NORFOLK, William W. Welch, John H. Welch. | P. Lyman.                               |
| PLYMOUTH, Samuel T. Salisbury.            | WATERTOWN, W. S. Munger.                |
| Thomaston, William Woodruff.*             | WINCHESTER, West Winsted, James         |
| ROXBURY, Myron Downs.*                    | Welch,* John W. Bidwell.                |
| SALISBURY, John H. Blodgett.              | WOODBURY, Charles H. Webb, Harmon       |
|                                           | W. Shove.                               |

## MIDDLESEX COUNTY.

IRA HUTCHINSON, M. D., of Cromwell, Chairman.

MINER C. HAZEN, M. D., of Haddam, Clerk.

|                                                                                                               |                                            |
|---------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| MIDDLETOWN, CHAS. WOODWARD,*                                                                                  | DURHAM, R. W. Mathewson.                   |
| Elisha B. Nye, George W. Burke, William B. Casey, John Ellis Blake, Rufus Baker, F. D. Edgerton, Noah Cressy. | ESSEX, Alanson H. Hough,*                  |
| CHATHAM, Middle Haddam, Albert B. Worthington.                                                                | Charles H. Hubbard.                        |
| CHESTER, Sylvester W. Turner.                                                                                 | HADDAM, Miner C. Hazen.                    |
| CLINTON, Denison H. Hubbard.*                                                                                 | KILLINGWORTH, G. R. Reynolds.              |
| CROMWELL, Ira Hutchinson.*                                                                                    | OLD SAYBROOK, Asa H. King * J. H. Grannis. |
|                                                                                                               | PORTLAND, George O. Jarvis, C. A. Sears    |
|                                                                                                               | SAYBROOK, Deep River, Edwin Bidwell        |

## TOLLAND COUNTY.

CHARLES F. SUMNER, M. D., of Bolton, Chairman.

GILBERT H. PRESTON, M. D., of Tolland, Clerk.

|                                  |                     |                                                                      |
|----------------------------------|---------------------|----------------------------------------------------------------------|
| TOLLAND, Oliver K. Isham,*       | G. H. Preston.      | Mansfield Depot, Norman Brigham,*                                    |
| BOLTON, Chas. F. Sumner.         |                     | Julian N. Parker.                                                    |
| COVENTRY, John B. Porter,*       | Maurice B. Bennett. | SOMERS, Orson Wood.*                                                 |
| South Coventry, Timothy Dimock,* | Henry S. Dean.      | STAFFORD, Wm. N. Clark.*                                             |
| ELLINGTON, J. A. Warren.         |                     | West Stafford, Joshua Blodgett.*                                     |
| MANSFIELD, Wm. H. Richardson.*   |                     | Stafford Springs, C. B. Newton.                                      |
| Mansfield Center, O. B. Briggs.  |                     | Vernon Depot, A. R. Goodrich.                                        |
|                                  |                     | Rockville, Stephen G. Risley, Francis L. Dickinson, N. Gregory Hall. |

\* Over sixty years of age.

## SUMMARY OF MEMBERS, APRIL 1, 1869.

|                         | Total.    | Deaths. |
|-------------------------|-----------|---------|
| Hartford County,.....   | 73        | 0       |
| New Haven County,.....  | 93        | 0       |
| New London County,..... | 28        | 1       |
| Fairfield County,.....  | 42        | 0       |
| Windham County,.....    | 29        | 2       |
| Litchfield County,..... | 35        | 0       |
| Middlesex County,.....  | 22        | 0       |
| Tolland County,.....    | 20        | 0       |
|                         | <hr/> 342 | <hr/> 3 |

NOTE.—Former Fellows of the Connecticut Medical Society are *permanent members* of the Annual Convention, and take part in all the proceedings of the Convention, except the election of Officers and Standing Committees. All the *members* of the Society are especially requested to be present at the Annual Convention.

## DEATHS OF MEMBERS DURING THE YEAR ENDING MAY 1, 1869.

*New London County.*

George E. Palmer, M. D., of Stonnington, died May 8, 1868, of fatty degeneration of the heart, aged 65 years.

*Windham County.*

Asa Witter, M. D., of Woodstock, died May 9, 1868, of Pneumonia, aged 69 years.

Orrin Witter, M. D., of Chaplin, died February 4, 1869, aged 73.

## DUTIES OF THE COUNTY CLERKS.

To warn County Meetings.

To record the proceedings of the County Meetings.

To collect the taxes and pay the same to the Treasurer.

To return to the Treasurer the names of Members delinquent on taxes, with the amounts severally due from each.

To transmit to the Secretary a list of the elected Fellows, and the person recommended as a candidate for a gratuitous course of lectures in the Medical Institution of Yale College, and the titles of essays recommended for publication, with the names of their authors, by the first of May in each year.

To transmit duplicate list of the Members of the Society to the Secretary and Treasurer, on or before the first day of the Convention, on penalty of five dollars for each neglect.

To report to the Secretary of the State Society, on the first day of its Annual Convention, the names, ages, and diseases of the Members of this Society who have died during the year preceding the 1st of April in each year, in their several County Societies.

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## RULES OF ORDER.

1. Organization.
2. Certificates of Membership presented and read by the Secretary.
3. Committee on the Election of Fellows.
4. Address of President.
5. Election of officers for ensuing year.
6. Unfinished business of previous year disposed of.
7. Reception and reference, without debate, of Communications, Resolves, &c. from the several Counties, and Members of the Convention.
8. Reading Treasurer's Report.
9. Committee to audit the same.
10. Standing Committees appointed.
11. Committee to nominate Delegates to American Medical Association.
12. Committee on Candidates for Gratuitous Course of Lectures.
13. Committee on Honorary Degrees and Honorary Membership.
14. Committee to nominate Dissertator.
15. Dissertation.
16. Reports of Committees appointed on County Communications, Resolves, &c.
17. Reports of Standing Committees.
18. Reports of Committees in the order in which business was brought forward in Convention.
19. Miscellaneous business.

## APPENDIX A.

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### *Report of the Committee of Examination.*

Your Committee on examination, would respectfully report that since last meeting of this Society, two examinations have been held at the Medical College, viz: July 21st, 1868, and January 13th, 1869.

At the Commencement Examination, held July 21st, 1869, there were present on the part of this Society, H. M. Knight, M. D., D. H. Hubbard, M. D., H. W. E. Matthews, M. D., and C. F. Sumner, M. D.; and on the part of Yale Collège, Professors Silliman, Hubbard, Lindsley, White, Ives and Barker, and J. B. Townsend, M. D., by invitation. The President being absent, Dr. Sumner was elected President *pro tempore*.

The following persons were examined and recommended for the Degree of M. D. :—

FRANK H. FOWLER, B. A., Trinity, Milford. Thesis, the Digestive Function.

JOHN HENRY GRANNISS, Danbury. Thesis, Intermittent Fever.

The Committee having appointed H. W. E. Matthews M. D., to report the proceedings of the Board to this Society, adjourned *sine die*.

The Annual Examination was held at the Medical College, January 13th, 1869.

Present on the part of the Society, Samuel B. Beresford, M. D., President *ex-officio*; H. M. Knight, M. D., P. M. Hastings, M. D., D. H. Hubbard, M. D., L. Williams M. D., I. Gregory, M. D., H. W. E. Matthews, M. D., and C. F. Sumner, M. D.; on the part of Yale College, Professors Silliman, Hubbard, Lindsley, Bacon, White, Ives, Sanford and Barker.

The following persons were examined and recommended for the Degree of M. D. :—

GEORGE WHITFIELD BENJAMIN, M. D., New Haven. Valedictory.

DAVID CRARY, Hartford. Thesis, Carbolic Acid.

JOHN MORGAN, Hadlyme. Thesis, Scarlatina.

BYRON WOOSTER MUNSON, Seymour. Thesis, General Practice.

DANIEL POLL, Hartford. Thesis, Scarlatina.

GOULD ABELIAH SHELTON, Huntington. Thesis, Diphtheria.

HANFORD LYON WIXON, New Haven. Thesis, Phthisis.

LUTHUR HODGES WOOD, Ph.B., New Haven. Thesis, Researches on the Influence of Mental Activity upon the Excretion of Phosphoric Acid by the Kidneys.

The following Resolution was unanimously passed.

*Resolved*, That the report of the Committee awarding the Silliman Prize of \$50 to Luther H. Wood, Ph.B., for his Memoir entitled as above, be accepted by the Board of Examiners, and that the publication of the same in the Transactions of the Connecticut Medical Society be recommended.

In the evening, the usual public exercises were held at the College. The President of the Board being absent, Dr. Lewis Williams was chosen to preside. Dr. E. K. Hunt of Hartford delivered the annual address to a large audience. Luther H. Wood, of the graduating class, read the Prize Essay. G. W. Benjamin delivered a Valedictory address, which was unusually able and appropriate. The Silliman Prize was presented with a few appropriate remarks by President Williams, and the Degrees were conferred by President Woolsey.

Some of the candidates did great honor to themselves as well as instructors, in the rigid examination to which they were subjected and the few who did not, failed apparently from the want of that preliminary education and mental training, which is essential to successful progress in advanced studies. Those who had availed themselves of the advantage of the Sumner School of the Institution, illustrated in a marked manner, the value of systematic training by recitations.

Respectfully submitted,

H. W. E. MATTHEWS, *Secretary*.

NEW HAVEN, May 25th, 1869.



## APPENDIX B.

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### *Report of the Committee on Organization.*

MR. PRESIDENT,—Your Committee to whom was referred the report of the last "Committee on Organization," beg leave to present the following :

It has been found impossible for the Committee to hold frequent meetings, owing to the fact that the members of it were chosen from widely distant and remote parts of the State. But notwithstanding this disadvantage, by means of correspondence, and one protracted session of several hours, at which all the Committee were present except one, we are enabled to report with great unanimity a scheme for your consideration, which your Committee present with much confidence that if adopted, it will prove in its workings eminently satisfactory.

The most superficial survey of our present Organization will reveal so many defects and incongruities, particularly in the Charter of the Society, that it will be at once apparent that any important and really useful change can only be effected by a repeal of that ancient and time-honored instrument, and by reorganizing *de novo* more in accordance with the circumstances and spirit of the age.

As is well known the need of some change has been felt for a long time, and the conviction of its necessity has been forcing itself upon the minds of members with increasing intensity with every Annual Convention. Attempts from time to time have been made to introduce improvements but the attempts have failed, not because the need of it is disclaimed, not because a complacent satisfaction with our present status prevails, but in the opinion of your Committee, because *too little* rather than too much was attempted. The changes proposed did not reach the whole difficulty. They did not therefore, recommend themselves to the sense of the Society as adequate to accomplish the objects aimed at. They were at best but temporizing expedients, palliating merely the

evils of a defective and bad organization, not removing defects or radically correcting these evils.

Your Committee are entirely persuaded that no real improvement in our organization can be effected so long as we are hampered and checked in every direction, by the absurd restrictions and limitations of our present charter. Your Committee therefore, earnestly recommended, that petition be made to the Legislature, now in session, for its repeal, and for the granting of a new Act of Incorporation, on a voluntary basis. Much the greater part of the present Act ought properly to be in the form of By-Laws, subject to the dictation of the Society, as the changes of time, and current events may require.

The exclusive privileges which the charter originally granted to the members of the Society have long since been removed. It is quite time that the hindrances and restraints put upon us by reason of those privileges, should be removed also.

Your Committee has acted upon the presumption that this sentiment would meet with general if not unanimous approval, and has accordingly prepared a revision of the Charter and By-Laws which revision in accordance with that idea has been printed and placed in your hands, and is most respectfully submitted for your consideration.

It may be proper briefly to allude here to the more important changes which it has been thought best to propose. It will assist those who have not carefully pursued it and compared it with the old, in comprehending the general outline and prominent features of this new organization which is now offered for your adoption.

1. Only the 1st and 7th Sections of the old charter have been retained unchanged.

2. As in the old so in the new, it is provided that the President and Fellows shall have the management and superintendence of the Society.

3. This body, President and Fellows, is composed as before of the Officers of the Society, and the Elected Fellows, with provisions for increasing the number heretofore allowed.

4. No person is eligible to membership who has not received the degree of Doctor of Medicine; finally, all the other provisions contained in the old charter which your Committee thought worthy of retaining have been embodied in the By-Laws. The proposed Charter is very simple, and yet sufficient for all purposes for which such an instrument is designed.

In the By-Laws, the first important change met with, is the provision for two distinct and separate assemblies. One, the Annual Meeting of the President and Fellows, the other the Annual Convention. The first corresponds essentially to our present meeting, and its objects are identical, viz: to transact the routine business of the Society, and to have concern for its good regulation and its general interest. The second, the Annual Convention occurs upon the day following the other, and is the assembling *en masse* of the whole body of the Society, and its object is both literary and social. This will be the occasion for the presentation and reading of papers on medical topics, for debates and discussions on questions of professional interest, and reports on subjects of scientific inquiry. It will also afford opportunity for the cultivation of better personal acquaintance with each other, for the interchange of individual thought, for the renewal of past friendship and the formation of new ones, and especially it is hoped, will afford nourishment and strength to the sentiment of *esprit de corps*, which by reason of the almost complete isolation from each other in consequence of the continuous practice of our art, has with too many of us but a feeble growth, and with some a most doubtful and unreliable vitality. The more to promote the social character of the convention and its good influences, your Committee recommend that the exercises of the day terminate with a dinner, to which every member of the Society is welcome, and to which we all sit down together as one great and happy family. As the chairman of our last Anniversary dinner wisely remarked, "If men would love one another, they must dine together." "Suspicion, jealousy and selfishness grow out of isolation. Social intercourse wears off the angular points of character, and calls forth the better qualities of our nature, humanizes, harmonizes, liberalizes." Your Committee believe the Anniversary dinner will prove both a popular and useful adjunct to the new organization.

Some unfamiliar names appear in the report. County Associations instead of County Meetings, and President in lieu of Chairman, occurs, and for the purpose of exciting more interest in the County Associations, the Presidents of them are made *ex-officio* Vice-Presidents of the Society.

The chapter of the By-Laws under the head of "Local Associations," introduces another new feature, viz: The permission of other Medical Organizations than those of Counties to send rep-

representatives to the meeting of the President and Fellows. The introduction of this measure arose from several causes. The present Charter which dictates the method of representation was adopted three quarters of a century ago, when there was not so much disparity in numbers in the different counties, and when many other circumstances made that system expedient. But at the present time it seemed to your Committee but just and proper that the representation should bear some relation to the number represented, and still it did not seem desirable to make the number of Fellows strictly pro rata, as that would give nearly one half the Fellows to Hartford and New Haven Counties. And thus the expedient of permitting Fellows from the Local Associations was suggested as a compromise. It was also believed that this would be a healthy stimulus to all the larger cities in the State to organize Local Societies, and by their common relationship with the State Society, she would serve as a bond of union, connecting all together, and thus developing a deeper and more active interest in her and in each other.

In the mode and time of Election your Committee flatter themselves that they have introduced a valuable improvement. The By-Laws upon that point are so definite as to require no explanation.

In this connection it will be appropriate to speak of the leading influences which controlled and guided your Committee in their action.

The first effort of the Committee was to establish in their own minds, just what is the prevailing, prominent sentiment and wish of the Society. The subject has been agitated, it has been viewed and discussed from various stand points, thought and expression have had full time and play—now what is the result? what impress has all this left upon the Society as a whole? To determine this, opinions were sought from those who had exhibited interest in, and given attention to the matter, it was made the subject of conversation whenever opportunity favored it,—regard was had for the drift and tendency of the discussion on the question one year ago at New Haven, and the result of these varied enquiries was, the fixed conviction in the minds of your Committee, that the chiefest and most general wish of the Society is that there shall be at least one day annually when all the members of the Society can come together to promote the interests of our Profession and the noble art we practice, upon an exact equality—where there

shall be no distinctions of voting or speaking, or any other privileges that are not common to all.

To gratify this wish was then the proper object your Committee aimed at. Upon it, as the grand central point they hinged all their action. They sought to adapt the minor details of proposed changes to the most successful achievement of this result, viz: a Mass Meeting of the Society.

The present system of Fellowship has been retained as affording as well as any other method, the proper appliances for the systematic and orderly conduct of this Convention; and besides, regard was had for the conservative feelings of many, who would hesitate to abolish a familiar and time-honored custom, merely for the sake of change.

If members will analyze the different parts of the work which the Committee had to do, they will better appreciate the influences guiding them and the success of their efforts. Assume these facts.—The primary and ultimate object of the Society is the advancement of the interests of medicine. This will be most successfully effected, it is believed, by a full and free assembling of all its advocates in council. Your Committee are appointed to organize that assembly. Because such an assembly unorganized, and with no provision for its control and direction, would be a *mob*—moderate and even genteel, perhaps, but nevertheless a *mob*. Wanting direction and order, it would be a disorderly assembly, and that is a *mob*.

The experience of all civilization teaches that large bodies of men organized into societies, having regular periodical meetings, are successful in their management and conduct, only by means of what might be called the machinery of the society. There are certain routine acts common to all organizations of this kind, which can be best performed by the few picked men, selected and delegated for that purpose. Hence the invention of committees for the despatch and ready execution of such business. They are absolutely essential and indispensable to the successful working of societies. It is such a relation to the Society that the President and Fellows bear. They constitute a grand Committee, charged with the care of doing whatever may be necessary for the well ordering and harmonious working of the Annual Convention. They are wholly subservient to that. They hold the same relationship to it that the domestics of a household do to the family. As they perform those menial services necessary to the comfort

and enjoyment of the family, so do the President and Fellows perform such duties as are beneath the dignity of the whole Convention, and yet are indispensable to the ready and harmonious exercise of the higher functions of that body. These remarks are made because some minds have been confused in understanding the relations of these two bodies to each other, and the purpose and intention of the Committee in proposing them.

The functions of the two bodies are entirely separate and distinct.

We have thus briefly passed in review the most prominent distinctive characteristics of the proposed plan of reorganization. The Committee have caused it to be printed, in accordance, it was conceived, with the "instructions to put the subject in proper form for final action by the next Convention." They do not present it claiming that it makes any close approximation to perfection. They do not anticipate an approval of it in all its details. It is not in the nature of such a work to be regarded by different minds in the same light or with any degree of unanimity. Your Committee are not so sensitive, either, as to have their feelings wounded by any just and proper criticisms of their work. Indeed they would themselves suggest amendments of several minor points. But in the leading and essential features of the plan they have aimed to, and they believe they have given expression to the prevailing sentiments and wishes of the Society. They regard themselves as acting in the character of accouchers, aiding in the delivery of what was already conceived in the womb of the Society, and while they do not regard this production as exclusively their own child, still they feel such an interest in it that they would dislike to see it so much mutilated and abused as to be fatal to its life. As it is, however, it is most respectfully submitted.

|                 |                     |
|-----------------|---------------------|
| C. A. LINDSLEY, | } <i>Committee.</i> |
| H. M. KNIGHT,   |                     |
| L. S. WILCOX,   |                     |
| I. G. PORTER,   |                     |

# PROPOSED CHARTER

## OF THE

### CONNECTICUT MEDICAL SOCIETY.\*

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SEC. 1. Be it enacted, &c., That the Physicians and Surgeons now members of the Connecticut Medical Society, and all Physicians and Surgeons who shall be associated with them in pursuance of the provisions of this act, shall be and remain a body politic and corporate, by the name of THE CONNECTICUT MEDICAL SOCIETY; and by that name they and their successors shall and may have perpetual succession; shall be capable of suing and being sued, pleading and being impleaded, in all suits of whatever name and nature; may have a common seal, and may alter the same at pleasure; and may also purchase, receive, hold and convey any estate, real or personal, to an amount not exceeding one hundred thousand dollars.

SEC. 2. And be it enacted, That the superintendence and management of the Society shall be vested in a body to be known and called by the name of "The President and Fellows of the Connecticut Medical Society;" which body shall have power to prescribe the duties of its officers and members, and fix their compensation; to establish the conditions of admission, dismissal and expulsion; to lay a tax from time to time upon the members, to collect the same, and to hold and dispose of all moneys or other property belonging to the Society, in such manner as they may think proper to promote the objects and interests of the Society; and in general, to make such by-laws and regulations for the due government of the Society, not repugnant to the laws of the United States, or of this State, as may be deemed necessary.

SEC. 3. And be it enacted, That the President and Fellows of the Connecticut Medical Society shall be composed of the officers of the Society for the time being, and of Fellows, (not less than three) chosen by and from each of the County Societies, now existing, and of Fellows chosen by and from such other medical organizations within the State as the President and Fellows may hereafter recognize and allow to be represented among them.

SEC. 4. And be it enacted, That hereafter no one shall be admitted to membership, in any County or other Society having connection with this Society, unless he shall have received the degree of Doctor of Medicine, or been admitted *ad eundem*, from such medical authorities as this Society shall deem proper to recognize; *provided*, that this shall not be construed so as to prohibit any person from becoming a member of any local society connected with this, who has received

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\* By order of the Seventy-seventh Convention of the Connecticut Medical Society, the following proposed Charter is submitted to the several County Meetings, to be approved or disapproved by a vote of YEs or NO on the Charter as a whole. The votes of the several County Meetings to be reported to the Secretary before the next Annual Convention.

the degree of M. D. in any school recognized by, or in affiliation with the "American Medical Association," previous to the passage of this act.

SEC. 5. It shall be the duty of the several clerks of the county meetings, in their respective counties, to collect and pay over to the Treasurer of the Society all such taxes as shall from time to time be laid by the President and Fellows, upon the members of the Society as aforesaid; and for that purpose said clerks may procure a warrant under the hand of a justice of the peace, against such member or members of the Society as shall neglect or refuse to pay the taxes so imposed upon them as aforesaid; which warrant any justice of the peace is hereby empowered to issue, and said warrant shall be directed to the sheriff or his deputies of the county in which such delinquent member or members reside; and said sheriff or either of his deputies, on receiving such warrant, may therewith proceed to enforce the collection of such tax or taxes, in the same manner, and with the addition of the same fees, as are by law prescribed and allowed to the collectors of town taxes. And if any of the clerks of the county meetings shall neglect or refuse to collect the taxes entrusted to him to collect, by the time the same are made payable, or having collected the same, shall neglect or refuse to pay the same over to the Treasurer of the Society, such Treasurer may cause a suit or suits to be instituted against such delinquent, in the name of the Society, before any court proper to try the same, and the same to pursue to final judgment; and the clerks shall be allowed and receive a compensation of five per centum on all moneys collected by them respectively, and paid to the Treasurer of the Medical Society.

SEC. 6. And be it enacted, That this act shall be considered a public act, and shall take effect on the \_\_\_\_\_ day of \_\_\_\_\_ 18 ; and the act entitled an act to incorporate the Connecticut Medical Society, passed \_\_\_\_\_ and all supplements thereto, be, and the same are hereby repealed.



PROPOSED BY-LAWS\*

OF THE

CONNECTICUT MEDICAL SOCIETY.

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CHAPTER I.

*Titles and Meetings.*

SECTION 1. This Society shall be known by the name of THE CONNECTICUT MEDICAL SOCIETY; and it shall be composed of the members of the County Associations and of the Medical Associations of New Haven and Hartford, and such other medical associations as the President and Fellows may in future recognize, under such limitations as are hereinafter expressed, and of Honorary Members.

SEC. 2. The Connecticut Medical Society shall hold an Annual Convention on the Thursday following the fourth Wednesday in May. The Annual Convention shall assemble alternately at New Haven and Hartford. Ten members shall constitute a quorum. If the President and Vice President be absent, the Society may choose a President pro tempore.

SEC. 3. The President and Fellows of the Connecticut Medical Society shall hold an Annual Meeting.

SEC. 4. The County Associations shall hold in their respective counties an annual and a semi-annual meeting.

CHAPTER II.

*Officers.*

SECTION 1. The officers of the Society shall consist of a President, Vice President, Treasurer, Secretary, Committee on matters of professional interest in the State, and the Presidents of the County Associations, who shall be Vice Presidents *ex-officio*.

SEC. 2. It shall be the duty of the President to preside at the Annual Convention, and at all the meetings of the President and Fellows, preserve order, state and put questions, call for reports of Committees, enforce the observance of the by-laws, and perform such other duties appropriate to his office, as the Society shall assign him. At the annual meeting of the President and Fellows, the President shall present such matters for their consideration as he may think require attention. At the Annual Convention he shall deliver an address on some suitable subject.

SEC. 3. In the absence or disability of the President, the Vice President shall preside, and in case of a vacancy in the office of President, caused by death, re-

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\* The Proposed By-Laws are submitted to the several County Meetings for consideration, to take such action as may enable the Fellows from the several counties to represent the views of their constituents at the next Convention.

signation or removal, all the duties pertaining to it shall devolve on the Vice President.

SEC. 4. It shall be the duty of the Treasurer to take charge and keep a correct account of all moneys belonging to the Society, together with the receipts and disbursements, and render annually to the President and Fellows a statement of all moneys received and paid by him. He shall preserve for the benefit of the Society, all donations and other moveable property committed to his charge, and keep an exact list of the same, together with the names of the respective donors. He shall not pay any money out of the treasury, nor make any investment of the funds of the Society, or change the same, but by order of the President and Fellows. And he shall deliver to his successor all books and papers, with the balance of cash or other property of the Society in his hands.

SEC. 5. The Secretary shall have charge of the records of the Society, attend all the meetings of the President and Fellows, and the Annual Convention of the Society, record all the transactions of the same, give true copies of them, when thereto requested, conduct their correspondence, and have the custody of the seal of the Society.

He shall be required to take the following oath:

"You, A. B., being chosen Secretary of the Connecticut Medical Society, do swear that you will record all votes of the President and Fellows, and of the Annual Conventions of the Society, and give true copies when thereto requested, and faithfully perform all the duties relating to said office, so help you God."

The Secretary shall send each year an extra copy of the published "Proceedings" of the Society, to each of the Clerks, for the use of the County Societies and to each of the other Medical Societies represented in the Convention; also to other State Societies and to Honorary Members. The Secretary shall be *ex-officio* chairman of the Committee of Publication.

He shall also cause a notice to be put up each year in at least three Hotels in the town in which the Annual Convention meets, stating the time and place of meeting, at least one day before said meeting.

SEC. 6. The "*Committee on matters of Professional Interest in the State*" shall consist of three, and be considered members *ex-officio* of "the President and Fellows of the Connecticut Medical Society," to be elected annually by ballot, the first named to be Chairman, whose duty it shall be, at every Annual Convention, to report the progress of our science, particularly in Connecticut—remarkable and instructive cases of disease, that may have come to their knowledge—interesting facts or discoveries relating to medicine—all circumstances connected with epidemics, (if any have prevailed,) and the treatment adopted, whether successful or otherwise—in short, whatever influences may concern the health of the citizens of Connecticut. And the more effectually to perfect this report, it shall be the duty of each County and other Association represented in this Society, annually to appoint one of its members as a Reporter, who shall furnish to this Committee, on or before the first day of May, all the information he can get relative to these subjects, within the limits of the district in which the local association exists.

SEC. 7. Any officer of the Society may, for sufficient reasons, resign his office, or may be removed therefrom by order of the President and Fellows, for neglect, inattention or mal-conduct; in either of which cases, or on the death of any off-

cer, the President and Fellows shall supply the office vacated as soon as may be convenient.

SEC. 8. The necessary expenses of the Treasurer, Secretary, and Chairman of the "Committee on matters of professional interest in the State," shall be paid.

### CHAPTER III.

#### *President and Fellows of the Connecticut Medical Society.*

SEC. 1. There shall be an annual meeting of the President and Fellows of the Connecticut Medical Society, on the day preceding the Annual Convention of the Society, and in the same City where the Convention is to be held.

SEC. 2. The President, Vice President, and *ex-officio* Vice Presidents, Treasurer, Secretary, Committee on matters of Professional interest, and Fellows, shall be known and called by the name of the President and Fellows of the Connecticut Medical Society; a majority of whom legally assembled together shall be a quorum for the transaction of any business; and shall have power to make by-laws for the regulation and government of the Society, and for the promotion of the objects of the same, not repugnant to the laws of the United States or of this State; to expel any member of the Society for misconduct; to make rules for the admission of members of the Society, and for their dismission from the same; to lay a tax upon the members of the Society, not exceeding five dollars in each year; to dispose of the moneys thus raised, and all other property of the Society, in such manner as they may think proper to promote the objects and interests of the Society.

The President and Fellows at any annual meeting and after one year's nomination of every candidate, and not otherwise, may, by a major vote of those present, elect eminent physicians not resident within this State, to be honorary members of this Society. But those elected shall not exceed three in number in any year.

SEC. 3. At all the meetings of the Fellows for the transaction of business, the President of the Society, or in case of his absence, the Vice President shall preside; and in case of the absence of the President and Vice President, the Fellows present may elect one of their own number as President for the occasion.

SEC. 4. The President of the Society, or in case of his death, or inability, the Vice President, on any special occasion, shall have power to call a meeting of the President and Fellows, at such time and place as he may think proper, when applied to by any five Fellows, two of whom shall be members of different County Societies, and he shall cause notice thereof to be given by the Secretary to each member, of the time and place of meeting, which notice shall be mailed at least one week previous to said meeting; and the President shall also cause twenty days' notice of the special meeting to be given in two newspapers printed in this State.

SEC. 5. The Committee of Examination, the Committee to nominate Professors in the Medical Institution, and the Committee to nominate the Physician to the Retreat for the Insane, shall be chosen by ballot. Only two persons shall be elected on each of these Standing Committees each year; the first two on the list to be dropped, and the two chosen to be placed at the bottom; but any person may be re-elected. These Standing Committees of the Society shall report annually to the President and Fellows, whenever they have had occasion to act in their official capacity.

The Committee of Publication shall be three in number, of which the Secretary shall be one, and the others shall be chosen by ballot.

The Nominating Committee shall consist of one from every County and Local Association represented; and the Fellows of each of said Associations respectively, shall choose from among themselves one to represent them on said Committee. This Committee shall report at the time appointed for the election, at the Annual Convention.

All other Committees shall be appointed by the presiding officer.

SEC. 6. It shall be the duty of the Fellows of the several counties to present to the Annual Convention short obituary sketches of deceased members, which shall be revised, amended or condensed by the Committee of Publication, as they deem expedient.

SEC. 7. The President shall at an early hour of the session appoint a Committee of three Fellows, of which the Secretary shall be one, to be called the Business Committee, to whom all reports of cases, dissertations or other papers designed to be read at the Annual Convention shall be handed. And this Committee shall examine them and recommend the manner and order in which they shall be presented to the Convention.

#### CHAPTER IV.

##### *County Associations.*

SEC. 1. The members of the Connecticut Medical Society shall meet annually, and semi-annually, in their respective counties, at such times and places as have been or may hereafter be agreed upon by them: provided the annual meeting shall be at least four weeks before the fourth Wednesday in May. Each County Association shall be known and called by the name of the County in which it exists. They shall choose from among themselves a President, Clerk, and such other officers as they may find necessary. At their annual meeting, as soon as organized, they shall immediately elect, by ballot, of their own number, in each county, five, except in the counties of Middlesex and Tolland, and in each of those counties, three Fellows, to have part in the superintendence and management of the Society.

SEC. 2. The County Associations in their respective counties, shall have power to adjourn meetings and to call special meetings, from time to time, as they shall deem expedient; and they may adopt such by-laws and regulations for their own government, and for the promotion of Medical Science, as they may think proper, not contrary to the laws of the State or the by-laws of the Connecticut Medical Society.

SEC. 3. Any person of good moral character, found to possess the qualifications prescribed by the Charter and By-Laws of this Society, may, by any County Association, at any meeting legally holden, be admitted to membership, by a major vote of the members present, by ballot, provided he is residing and practicing in said county, and makes application for that purpose.

SEC. 3. All persons so elected, shall, within one year after such election, subscribe the By-Laws of the Society, or otherwise declare in writing, their assent to the same; or such election shall be void.

SEC. 4. Any County Association may, by a major vote, dismiss from the Society any member who shall remove from this State, or who shall leave the profession for other pursuits.

SEC. 5. Any County Association may, if it is deemed expedient, recommend to the President and Fellows, for dismission from the Society, any member residing in that County, who shall apply for such dismission by a written request to that effect delivered to the Clerk of said County Association at least ten days before the time of holding any legal County meeting; and also any member who shall refuse or neglect to pay taxes; and upon the approval of such recommendation by the President and Fellows, in annual meeting, the connection between such member and the Society shall be dissolved. *Provided*, That no member shall be honorably dismissed from the Society, until all his taxes shall have been paid.

SEC. 6. All violation of the By-Laws of the Connecticut Medical Society, or of the Medical Police adopted by the Society, or of the Rules and Regulations passed by the County Association, in conformity with the By-Laws of the State Society, may be prosecuted and tried in the respective County Associations, under the following regulations, viz:—The member accusing another of a violation of any of the beforementioned regulations, shall make a statement, in writing, of the transaction which he deems a misdemeanor, and lay the same before a Fellow of the Society; and such Fellow shall issue a notification to the accused, to appear before the next County Meeting, stating the time when and the place where it is to be held, to defend, if he sees fit, against such accusation. A copy of such accusation and notification shall be left with the accused, or at his last usual place of abode, at least twelve days previous to the time of holding the next County Meeting. And the accuser shall cause the said accusation and notification to be served and returned to the Clerk of the County Association, on or before the day of their sitting; and the offender, upon conviction, may be punished, by admonition, by suspension from the privileges of the Society for a period not exceeding two years, or by expulsion from the Society. *Provided*, That no sentence of expulsion shall be valid, until confirmed by the President and Fellows, in Annual Meeting.

SEC. 7. When a new Clerk is chosen in any of the County Associations, his predecessor shall deliver over to him all the records and papers appertaining to the office, retaining copies of the same, if he think proper.

The Clerks of the several County Associations shall take the following oath, viz:

"You, A. B., being chosen Clerk of the . . . . . County Association, do swear that you will record all votes of said Association, and give true copies of the same when thereto requested, and faithfully perform all the duties of said office. So help you God."

SEC. 8. It shall be the duty of the several Clerks of the County Associations, in their respective Counties, to collect and pay over to the Treasurer of the State Society, all such taxes as shall from time to time be laid by the President and Fellows upon the members of the Connecticut Medical Society. And the Clerks shall be allowed a compensation of five per cent. on all moneys collected by them respectively and paid to the Treasurer of the State Society.

If any members neglect or refuse to pay the taxes legally imposed upon them, it shall be the duty of the Clerks of the County Associations to which they belong, to proceed against such delinquent members, according to law, in the collection of the same. And if any of the Clerks of the County Associations shall neglect or refuse to collect the taxes entrusted to him to collect, by the time the same are due; or having collected the same, shall neglect or refuse to pay the same over to the Treasurer of the State Society, such Treasurer may cause suit

to be instituted against such delinquent, in the name of the Society, before any Court proper to try the same, and the same pursue to final judgment. The expenses incurred by the Clerks of the County Associations in collecting taxes, shall be cancelled and paid by the Treasurer.

SEC. 9. The Clerks shall transmit the names and places of residence of the Fellows, and of the person recommended for a gratuitous course of lectures, to the Secretary, before the first day of May in each year, that the Secretary may have ample time to arrange the programme for the Annual Convention. They shall also forward to the Secretary, and a duplicate copy to the Treasurer, on or before the annual meeting, the names of the members in their respective County Associations, and their place of residence; and those who fail in the performance of this duty, shall be subject to a fine of five dollars, to be collected by the Treasurer.

SEC. 10. The Clerks shall transmit to the Treasurer the names of members delinquent in taxes, with the amounts severally due from each, and what notice he has given to each delinquent of his indebtedness.

#### CHAPTER V.

##### *Local Associations.*

SEC. 1. The Medical Association of New Haven and the Medical Association of Hartford, and any other medical organization within the State, may be allowed, after submitting their Constitutions and By-Laws to the President and Fellows, by a vote of two-thirds of that body, to elect Fellows of the Connecticut Medical Society. The number shall not exceed the proportion of one to every ten members of their respective Associations, who are also members of the Society, as nearly as may be; and the Fellows so elected, who must be members of the State Society, shall have equal powers, privileges and rights with the Fellows chosen by the County Associations.

SEC. 2. Every Local Association, thus admitted into fellowship, shall elect its Fellows, and send a certificate thereof signed by the Secretary, with a full list of its members, on or before the first Wednesday in May, yearly and every year; and the said Fellows shall be considered Fellows of the Connecticut Medical Society for one year, and until others shall be appointed.

SEC. 3. Each Local Association shall, when required, give evidence that it has at least ten attending members, holds stated meetings, and is not in the practice of any violation of the By-Laws and Regulations of this Society.

SEC. 4. Each Local Association shall compel the attendance of its elected Fellows at every legally warned meeting of the President and Fellows; and if any Local Association shall fail to be represented without due reason assigned, an investigation and report of the causes of such failure shall be required from the Association thus unrepresented; and upon a failure of representation for three successive years, the said Association shall be suspended until restored by a vote of the President and Fellows.

#### CHAPTER VI.

##### *Members.*

SEC. 1. Each member of the Society shall have free access to the records of the Society, and of the County Associations to which he belongs, and may take attested copies thereof if he request them.

SEC. 2. All the members of the Connecticut Medical Society have the privilege of attending all meetings of the President and Fellows, and performing all the duties of Fellows, except voting. Honorary Members shall have the privilege of a seat at the Annual Convention, and of taking part in discussions; but they shall not vote on any question, nor be eligible to any office.

SEC. 3. The payment of the annual tax shall be optional with all members over sixty years of age.

SEC. 4. Any member of the Society who shall make, vend, or publicly recommend, or who is directly or indirectly interested in the manufacture, use or sale of any nostrum or patent medicine, shall not be eligible to any office, and is liable to be suspended from the privileges of the Society, or to expulsion.

SEC. 5. No member of the Society shall hold professional consultation or intercourse with any other than licensed Physicians and Surgeons in regular standing.

SEC. 6. It shall be the duty of each member of this Society, to accuse any other member of the Society, for such misdemeanors as he deems contrary either to the By-Laws, Medical Police, or Rules and Regulations, adopted by the Society; and the accuser shall proceed in the manner directed in Chapter IV, Sec. 6, of By-Laws.

## CHAPTER VII.

### *Elections.*

SEC. 1. All elections for Officers of the Society shall be at the Annual Convention, and by ballot; and a majority of votes shall be requisite to elect.

SEC. 2. Before the Society proceed to ballot, the Committee on Nominations shall present a list of candidates for the several offices provided for in Chap. II, Sec. 1, of these By-Laws; and, an opportunity having been given to the members to make other nominations, the Society shall then be called to ballot; if no election is obtained on the first canvass, the two highest shall be the candidates for the next balloting. When a choice is made, the persons chosen shall hold their office during one year, and until others shall be elected.

SEC. 3. The Nominating Committee shall report names for delegates to the American Medical Association, and to corresponding Societies, and shall also nominate a Committee of Arrangements, whose duty it shall be to provide convenient accommodations for the next Annual Convention, and an Anniversary Chairman, who shall preside at the dinner of the next year. The Anniversary Chairman shall be one of the Committee of Arrangements.

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## MISCELLANEOUS.

The Society adopts the Code of Ethics of the American Medical Association, as a part of its Constitution and By-Laws.

No article of the By-Laws, as now adopted, shall be altered or amended, except the subject proposed shall have been submitted in writing to the consideration of the President and Fellows at a previous annual meeting; and a vote of two-thirds of the members present in that body, shall be necessary to ratify and confirm any amendment.

On the day of the Annual Convention, a dinner shall be provided, at the expense of the Society, under the direction of the Committee of Arrangements.

Every member of the Society, whose taxes are all paid, shall receive, on application to the Treasurer, a dinner ticket. And the Treasurer is hereby authorized

to receive the dues of any member who may be in arrears, and credit the same to his account with the Clerk of his County Association.

An invitation to the dinner may be given to such eminent persons as the President of the Society, or Anniversary Chairman, shall think proper to notice in this manner.

## ORDER OF BUSINESS

### AT THE ANNUAL MEETING OF THE PRESIDENT AND FELLOWS.

Organization.

Presentation of certificates to the Secretary, who, with two Fellows appointed by the President, shall examine the same, and the Secretary shall report the names of those approved, together with the names of the Officers, the Fellows present and Delegates from corresponding Societies.

Minutes of last annual and special meetings read.

Unfinished business of previous year disposed of.

Committee on Nominations.

Reception and reference, without debate, of communications, resolves, &c., from the several Counties and members of the Convention.

Treasurer's Report.

Committee to audit the Treasurer's report.

Committee to nominate one or more Essayists for the next year, which Committee shall report at the Annual Convention.

Committee to nominate for vacancies in Standing Committees.

Reports of Committee appointed on County Communications, &c.

Reports of Standing Committees.

Reports of Committees in the order in which business was brought forward in the meeting.

Miscellaneous business. Adjournment.

### ORDER OF BUSINESS IN ANNUAL CONVENTION.

Organization.

List of New Members read by the Secretary.

The President's Address.

Written Reports, Essays, Reports of Delegates to and reception of Delegates from other Societies, &c., in the order arranged by Business Committee.

Any propositions or suggestions, conducive to the welfare of the Society, or to the general interests of Medicine, may be brought forward by any member. The Society shall decide by vote whether to engage in the consideration of the same.

It will be in order at any time, if questions of interest are suggested by the debates in Convention, to appoint a special committee on the same, to report at the next Convention.

Communications offered by persons not members of the Society, shall be received by a major vote of the Society.

Report of Committee to nominate Essayists for ensuing year.

Report of the Nominating Committee.

Election of Officers. Adjournment to dinner.



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## EDITORIAL NOTICES.

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The Committee of Publication congratulate the Society in view of the steady improvement of our Transactions.

The condition of our Finances, under the management of the present able Treasurer, enables us to introduce Scientific illustrations of great value to the profession.

In view of these improvements the Committee would suggest to contributors the importance of **GREAT CARE IN THE PREPARATION OF PAPERS INTENDED FOR PUBLICATION**, as it sometimes causes unnecessary delay to allow the authors of papers to make corrections when the matter is in type.

The Committee would also call attention to the fact that the Secretary is *required* to prepare and circulate a Programme of the literary exercises before the meeting of the Convention. To allow the proper preparation of such a programme, all papers intended for publication should be sent to the Publishing Committee *before* the Tenth day of May. Reports of County Clerks should also be sent promptly to the Secretary, **BEFORE THE FIRST OF MAY**, as the By-Laws of the Society require.

As the next Convention is expected to take definite action on the proposed new Charter and By-Laws, this subject should receive prompt attention at all the County Meetings. See Appendix B.

The Proceedings are sent by mail to all members of the Society not in arrears for taxes; to all Honorary Members and to Delegates from other societies; to the Secretaries of other State Societies; to Editors of Medical Journals who desire them. Persons entitled to the Proceedings, who fail to receive them, are requested to send their names and Post Office address to the Secretary.

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A few copies of the Prize Essays published last year are still on hand, and can be supplied at fifty cents per copy, on application to the Secretary.

N. B.—The Connecticut Medical Society are not responsible for the opinions advanced in any of the papers they publish, except where reports of Committees are approved by special vote.

The Secretary regrets the delay which has occurred in publishing the Proceedings this year. Those who know the amount of labor imposed upon the Secretary in getting out a volume of the character which we offer to the Society this year, will excuse this unavoidable delay.

M. C. WHITE,

*Secretary of the Conn. Med. Society.*

113 George Street, New Haven.

### AMERICAN MEDICAL ASSOCIATION.

The American Medical Association is making great efforts to raise the standard of Medical Education, and improve the profession.

Every member of a Medical Association is benefitted, more or less, by these labors, and *should* aid the Association by taking its published Transactions. Any one who will remit by mail Five Dollars to the subscriber, shall receive by return mail a receipt, and when the volume is published, it shall be delivered, free of expense, in Hartford, New Haven, or Meriden, as directed.

B. H. CATLIN, M. D.

WEST MERIDEN, June, 1869.

P. S.—The volume for 1869 is ready for the printer, and will be issued as soon as the funds are provided.

# PROCEEDINGS.

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THE *Seventy-Eighth* Convention of the Connecticut Medical Society was held at New Haven, May 25th and 26th, 1870.

The Convention assembled in the Common Council Chamber in the City Hall at 8 P. M., Wednesday, May 25th, and was called to order by the President, Henry Bronson, M.D. The list of Fellows, as reported by the Clerks of the several County Meetings, was read by the Secretary.

The President appointed Dr. Geo. A. Ward a Committee on Credentials, who reported that the printed list prepared and read by the Secretary was correct, and the report was accepted as follows, viz:—

## NEW HAVEN COUNTY.

|                      |                         |
|----------------------|-------------------------|
| O. W. Peck, M.D.     | R. F. Stillman, M.D.    |
| C. A. Lindsley, M.D. | Sheldon Beardsley, M.D. |
| G. A. Ward, M.D.     |                         |

## HARTFORD COUNTY.

|                         |                     |
|-------------------------|---------------------|
| Melancthon Storrs, M.D. | A. W. Barrows, M.D. |
| *E. F. Parsons, M.D.    | G. W. Sanford, M.D. |
| E. K. Hunt, M.D.        |                     |

## NEW LONDON COUNTY.

|                        |                           |
|------------------------|---------------------------|
| *Abiel W. Nelson, M.D. | Charles M. Carleton, M.D. |
| Ashbel Woodward, M.D.  | Albert T. Chapman, M.D.   |
| *A. B. Haile, M.D.     |                           |

## FAIRFIELD COUNTY.

|                        |                          |
|------------------------|--------------------------|
| Wm. G. Brownson, M.D.  | Andrew J. Smith, M.D.    |
| George B. Bouton, M.D. | *Aug. H. Abernethy, M.D. |
| George L. Beers, M.D.  |                          |

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\* Absent.

## LITCHFIELD COUNTY.

|                      |                       |
|----------------------|-----------------------|
| H. W. Buel, M.D.     | F. J. Young, M.D.     |
| *J. W. Bidwell, M.D. | J. B. Derickson, M.D. |
| B. B. North, M.D.    |                       |

## MIDDLESEX COUNTY.

|                       |                          |
|-----------------------|--------------------------|
| George W. Burke, M.D. | Denison H. Hubbard, M.D. |
| Rufus Baker, M.D.     |                          |

## TOLLAND COUNTY.

|                      |                    |
|----------------------|--------------------|
| G. H. Preston, M.D.  | O. B. Griggs, M.D. |
| A. R. Goodrich, M.D. |                    |

## WINDHAM COUNTY.

|                            |                        |
|----------------------------|------------------------|
| Samuel Hutchins, M.D.      | L. F. Bugbee, M.D.     |
| Lewis Williams, M.D.       | *Lowell Holbrook, M.D. |
| Eliphalet Huntington, M.D. |                        |

The following gentlemen were present as Delegates from other Societies, viz :

## VERMONT MEDICAL SOCIETY.

Chas. A. Sperry, M.D.

## MEDICAL SOCIETY OF THE STATE OF NEW YORK.

|                       |                      |
|-----------------------|----------------------|
| Seth Shove, M.D.,     | Robert Newman, M.D., |
| John P. Garrish, M.D. |                      |

## MEDICAL SOCIETY OF NEW JERSEY.

Thomas Ryerson, M.D.†

On motion of Dr. C. A. Lindsley, the election of Officers was postponed to wait for the arrival of other Fellows by the next train.

The President appointed the following committees, viz :—

*On Reception of Delegates from other Societies*—S. G. Hubbard, M.D. and H. A. Carrington, M.D.

*On Resolutions of County Meetings and from Fellows of the Convention*—Drs. C. A. Lindsley, L. S. Wilcox, G. H. Preston.

\* Absent.

† Dr. Ryerson being unexpectedly detained at home, sent a pleasant fraternal letter which was read to the Convention.

The Votes of the several County Meetings on the Proposed New Charter and By-Laws; the dismissal of two members by New Haven County Meeting, and a Preamble and Resolutions offered by Dr. E. K. Hunt, were referred to this Committee without debate.

*Committee to nominate Delegates to the American Medical Association and to other Societies*—Drs. E. K. Hunt, Ashbel Woodward, and O. W. Peck.

*Committee to Audit Treasurer's Report*—Drs. A. W. Barrows and G. W. Burke.

*Committee on Gratuitous Students*—Lewis Williams, M. Storrs and A. H. Abernethy.

*Committee on Honorary Degrees and Honorary Membership*—Drs. E. K. Hunt, H. W. Buel and George L. Beers.

*Committee to nominate Dissertators*—Drs. C. A. Lindsley and F. J. Young.

*On Committee of Publication*—Drs. G. W. Russell and L. J. Sanford.

*On Registration*—Dr. Geo. L. Beers.

The Treasurer then read his Annual Report, which was accepted and referred to the Auditing Committee already appointed.

The President's Address was deferred until 8 P. M. by an understanding between the President and the Committee of Arrangements.

The Committee on County Resolves reported, recommending that the action of New Haven County Meeting be approved and that S. G. Bartlett, M.D., of Naugatuck, and Frank G. Tuttle, M.D. also of Naugatuck, be honorably dismissed from the Society. On motion, this report was adopted and the gentlemen named were honorably dismissed from the Society.

The Committee also reported the Preamble and Resolutions presented by E. K. Hunt, M.D., and recommended their adoption. On motion, they were adopted as follows, viz :

WHEREAS, it is now proved, beyond a reasonable doubt, that the late Dr. Horace Wells, of Hartford, is entitled to the distinguished honor of having demonstrated on the 11th of December, 1844, the great fact that the human system may be rendered insensible during surgical operations by the inhalation of nitrous oxyd gas; and

WHEREAS, he at once made known the discovery to the medical and dental professions in Hartford, and continued to perform operations himself and assist others in performing them, while the patients were under the influence of this substance, until his death in 1848; and

WHEREAS, it is also proved that he used to some extent the vapor of sulphuric ether for the same purpose as early as the winter of 1844-5; and

WHEREAS, during the same winter, and a short time after his discovery, he visited the cities of Boston and New York, and made known to several of the most distinguished members of the medical profession in those cities his use of both these agents, thereby exhibiting the most commendable desire to make known to the world the knowledge of his discovery; and

WHEREAS, these facts are proved to have occurred nearly two years prior to the claim of discovery by any other person or persons; *Therefore*

*Resolved*, That in the opinion of this society there can no longer exist a reasonable doubt that to Dr. Wells *alone* belongs the honor of having discovered and demonstrated the great principle of modern anæsthesia.

It was further

*Resolved*, That the President and Fellows of the State Medical Society, now in session, finding the accompanying Preamble and Resolutions which have just been read, and the latter passed with great unanimity at the recent meeting of the National Medical Association, correctly to express the deliberately formed opinion and judgment of this Body, as to the subject to which they refer, hereby cordially approve and endorse the same; and for the purpose of more fully showing its sense of the great value of the discovery therein named, and the just claim of the discoverer to the lasting gratitude of the medical profession and mankind, do appoint a Committee of three of our number whose duty it shall be immediately to take such measures as shall seem to it best, to secure the erection of a monument which shall fitly commemorate the great fact of the discovery and forever perpetuate the name and memory of its discoverer.

The President appointed Drs. H. P. Stearns, A. W. Barrow and S. G. Hubbard a Committee to present to the Legislature the views of the Convention in relation to the claims of Dr. Wells as the discoverer of anæsthesia.

Drs. Geo. A. Ward and O. W. Peck were appointed Tellers, and the Convention proceeded to the Election of Officers for the ensuing year as follows, viz:

*President*, CHARLES F. SUMNER, M.D.; *Vice President*, GURDON W. RUSSELL, M.D.; *Treasurer*, J. C. JACKSON, M.D.; *Secretary*, MOSES C. WHITE, M.D.

The newly elected President took the Chair.

The Delegates from other Societies were then introduced to the Convention by the appropriate Committee, viz: C. A. Sperry, M.D., from Vermont; Seth Shove, M.D., from New York; Robert Newman, M.D., from New York.

On motion, the President appointed the following gentlemen (one from each county) a Committee to Nominate persons to fill the vacancies in the Standing Committees, viz: Drs. C. A. Lindsley, W. G. Brownson, Ashbel Woodward, A. W. Barrows, H. W. Buel, D. H. Hubbard, A. R. Goodrich and E. Huntington.

The Committee on County Resolves reported the action of the several County Meetings on the Proposed New Charter and By-Laws, and recommended that the Charter and By-Laws be taken up section by section, and that, after allowing opportunity for discussion and amendments in Convention, they be submitted to vote by the Convention. The Report was accepted and with various amendments the Proposed Charter and By-Laws were adopted section by section, and afterwards they were adopted as a whole in the form given in *Appendix B*.

It was then voted that a Committee of five be appointed by the President to obtain from the Legislature a revision of the Charter of the Society in the form just approved by the Convention. The Committee appointed are—Drs. C. A. Lindsley, J. G. Beckwith, P. W. Ellsworth, A. R. Goodrich.

Dr. C. A. Lindsley, in behalf of the Prudential Committee of the General Hospital Society, invited the Convention to visit the Hospital at their convenience.

Adjourned to meet again at 8 P. M. to listen to the Address of the retiring President.

### *Evening Session.*

At 8 P. M. the Convention reassembled and was called to order by the President, C. F. Sumner, M.D.

The retiring President, Henry Bronson, M.D., then delivered an able and interesting Address entitled "Science as a Helper; Inheritance as a Hindrance; Death as a Conservator."

On motion of Dr. J. G. Beckwith, the thanks of the Convention were tendered to Dr. Bronson for his address, and a copy was requested for publication in the Proceedings.

Adjourned to 8 A. M.

### *Thursday, May 26th.*

The Convention reassembled at 8 A. M. and was called to order by the President, C. F. Sumner, M.D.

Reports of Standing Committees were called for. The Committee on Examinations for Degrees were authorized to present their report to the Committee of Publication. *See Appendix A.*

The Committee of Publication reported the titles of various papers approved for publication, and also reported the order of literary exercises for the day. The report was approved.

The Committee on Honorary Degrees and Honorary Membership proposed the name of Wm. S. Bowen, M.D., of Bridgeport, as a candidate for Honorary Membership. The nomination remains on file for one year, in accordance with the By-Laws of the Society.

The Committee on Gratuitous Students made their Report, which was approved and placed on file.

*Voted*, That the Annual Tax be Two Dollars, payable June 1st, 1870.

The Auditing Committee reported that the accounts of the Treasurer are found to be correct. The Treasurer's Report was then approved and placed on file.

The following abstract made up from the Treasurer's Report will show the financial condition of the Society.—*Committee of Publication.*

*Abstract from Treasurer's Report.*

|                                                              |           |                  |
|--------------------------------------------------------------|-----------|------------------|
| May 27, 1869. Cash in Treasury, .....                        | \$365.34½ |                  |
| May 25, 1870. Cash collected during the year, .....          | 301.74    |                  |
|                                                              |           | <u>\$667.08½</u> |
| <i>Expenses for the year ending May 25, 1870.</i>            |           |                  |
| Printing Proposed Charter and By-Laws, .....                 | \$21.75   |                  |
| Secretary's Bill Expenses and Programme of Convention, ..... | 21.41     |                  |
| Use of Allyn Hall, May, 1869, .....                          | 10.00     |                  |
|                                                              |           | <u>\$53.16</u>   |
| Printing Proceedings for 1869, .....                         | \$325.25  |                  |
| Wood Cuts do do .....                                        | 30.00     |                  |
| 8 Pages Lithographs do .....                                 | 82.60     |                  |
| Postage on Proceedings do .....                              | 25.00     |                  |
|                                                              |           | <u>\$462.85</u>  |
| Treasurer's Salary and Expenses, .....                       |           | 12.25            |
|                                                              |           | <u>\$523.25</u>  |
| Expenses for 1869, .....                                     |           | <u>\$523.25</u>  |
| May 25, 1870. Balance in Treasury, .....                     |           | <u>\$138.87½</u> |

*Taxes Remaining Unpaid.*

*Outstanding Debentures.*

|                        |                  |                  |
|------------------------|------------------|------------------|
| Hartford County, ..... | \$ 53.80         | \$000.00         |
| New Haven " .....      | 258.08½          | 10.87½           |
| New London " .....     | 244.66           | 6.75             |
| Fairfield " .....      | 488.61           | 101.75           |
| Windham " .....        | 62.00            | 9.50             |
| Litchfield " .....     | 572.78½          | 45.75            |
| Middlesex " .....      | 00.00            | 00.00            |
| Tolland " .....        | 00.00            | 00.00            |
|                        | <u>\$1679.94</u> | <u>\$174.62½</u> |



*General Summary.*

|                                                                                    |                  |
|------------------------------------------------------------------------------------|------------------|
| Cash in Treasury, .....                                                            | \$138.87½        |
| Due from Clerks, .....                                                             | \$1679.94        |
| Deduct three-fourths of this for abatements, commissions,<br>bad debts, &c., ..... | 1259.96          |
|                                                                                    | <u>419.98</u>    |
| Leaves a Total of Cash and due from Clerks, .....                                  | \$558.85½        |
| The Society owes, as stated, for Debentures outstanding, .....                     | \$174.62½        |
| Leaving a balance in favor of the Society, .....                                   | \$384.23         |
| Balance last year, .....                                                           | 612.41½          |
| Decrease of Balance from last year, .....                                          | <u>\$228.18½</u> |

The Secretary read a communication from Wm. B. Bibbins, M.D., of the American Medical Association, asking the appointment of a Committee to co-operate in the preparation of a National Register of Physicians and Surgeons in the United States.

On motion, the following gentlemen were appointed a Committee to co-operate with the Committee of the American Medical Association in the preparation of a U. S. Medical Register, viz; S. G. Hubbard of New Haven, G. B. Hawley of Hartford, C. M. Carleton of Norwich, Geo. L. Beers of Bridgeport, H. M. Knight of Lakeville, O. B. Griggs of Mansfield Centre, E. Huntington of Windham, D. H. Hubbard of Clinton.

On motion of the Secretary, it was

*Resolved*, That a Committee of three be appointed to inquire whether the Honorary Degree of Doctor of Medicine can legally be conferred by any corporation in this State without the recommendation of the Connecticut Medical Society. The President appointed as said Committee, Drs. G. W. Russell of Hartford, Lewis Williams of Pomfret, and Rufus Baker of Middletown.

The Committee on Nominations reported and the following were elected to fill vacancies on the standing committees, viz:—

*On Committee of Examination*—Rufus Baker, M.D., Lowell Holbrook, M.D., F. L. Dickinson, M.D.

*On Committee to Nominate Professors in Yale College*—David L. Daggett, M.D., H. W. Buel, M.D.

*On Committee to Nominate Physicians to the Retreat for the Insane*—P. M. Hastings, M.D., Gideon L. Platt, M.D.

Dr. C. A. Lindsley presented a Design for an Obituary Tablet to be printed in the Proceedings, with the Obituary Record for the

year inclosed. On motion, the design was approved by the Convention, and Drs. C. A. Lindsley, M. C. White and J. C. Jackson were appointed a committee to secure its publication in the Proceedings.

On motion of the Secretary, Drs. Henry Bronson, J. G. Beckwith and G. H. Preston were appointed a Committee to revise and continue the List of Fellows and other Officers of the Society from its origin to the present time, and prepare the same for publication in the Proceedings for 1871.

The Nominating Committee reported, and Francis Bacon, M.D., was chosen *Dissertator*, and H. M. Knight, M.D., *Alternate*.

The Committee appointed to nominate Delegates to the Am. Med. Association, &c., made their report, which was adopted as follows, viz:—

Delegates to *Am. Medical Association*—J. W. Phelps, M.D., of Wolcottville; Ashbel Woodward, M.D., of Franklin; E. K. Hunt, M.D., of Hartford; H. W. E. Matthews, M.D., of New Haven; Andrew J. Smith, M.D., of Bridgeport.

Delegates to *Maine Medical Association*—John Witter, M.D., of Woodstock; Rufus Baker, M.D., of Middletown.

Delegates to *New Hampshire Medical Society*—J. C. Jackson, M.D., of Hartford; John H. Simmons, M.D., of Ashford.

Delegates to *Vermont Medical Society*—S. L. Childs, M.D., of East Hartford; L. F. Bugbee, M.D., of Willimantic.

Delegates to *Mass. Medical Society*—Isaac G. Porter, M.D., of New London; George W. Burke, M.D., of Middletown.

Delegates to *Rhode Island Medical Society*—G. H. Preston, M.D., of Tolland; O. B. Griggs, M.D., of Mansfield Centre.

Delegates to *New York Medical Society*—H. W. Buel, M.D., of Litchfield; J. M. Aimes, M.D., of West Haven; Geo. B. Boston, M.D., of Westport; W. A. M. Wainwright, M.D., of Hartford; C. A. Lindsley, M.D., of New Haven.

Delegates to *New Jersey Medical Society*—O. W. Peck, M.D., of New Haven; P. M. Hastings, M.D., of Hartford.

Delegates to *Pennsylvania Medical Society*—F. Bacon, M.D., of New Haven; D. H. Hubbard, M.D., of Clinton.

*Voted*, That Delegates to the American Medical Association, and to other Societies, have power to appoint substitutes, who may apply to the Secretary for credentials.

Honorary members were elected as follows, viz:—H. I. Bowditch, M.D., of Boston; Seth Shove, M.D., of Katanah, N. Y.; Samuel T. Hubbard, M.D., of New York City.

It was *Voted*, That the name of Nathaniel Drake Haight be recommended to the President of Yale College as a suitable candidate for the Honorary Degree of Doctor of Medicine.

10 A. M. The hour for literary exercises having arrived, L. S. Wilcox, M.D., read the Annual Dissertation, entitled "The external use of Oil in the treatment of Disease."

Dr. S. G. Hubbard of New Haven read a paper entitled "Specialism in its Relations to Practical Medicine." This paper was referred to the Committee of Publication.

It was then *Voted*, to publish 550 copies of the Proceedings.

Dr. J. P. Garrish, delegate from the Medical Society of the State of New York was introduced, and addressed the Convention.

The credentials of Dr. Ryerson, delegate from New Jersey, were read; also a letter from Dr. Ryerson was read to the Convention.

Dr. Geo L. Beers then read a paper prepared by Dr. Gustave Ohnesorg, of Bridgeport, giving some account of the peculiar symptoms manifested in several cases of trichinosis which came under his care in February and March last.

A recess was then taken for 20 minutes, during which time trichinae and other objects were exhibited to the members of the Convention by means of six Compound Achromatic Microscopes. This exhibition was conducted by Prof. M. C. White, assisted by W. L. Bradley, M.D., and formed a *pleasing and intensely interesting episode* in the proceedings of the Convention.

When the Convention was again called to order, R. Newman, M.D., of New York, Delegate from the N. Y. State Medical Society, read a paper on the Use of the Endoscope in the Treatment of Urethritis. The Endoscope and accessory apparatus were exhibited to the Convention. The thanks of the Convention were tendered to Dr. Newman for the interesting exhibition and paper on the Endoscope.

Dr. H. A. Carrington, of New Haven, read a paper entitled "Heredity," which was referred to the Committee of Publication.

Dr. Garrish made a verbal communication on Pelvic Deformities and the Induction of Premature Labor in cases of contracted pelvis, to save the life of mother and child. About the end of the seventh month Dr. G. administers extract of belladonna,  $\frac{1}{2}$  of a grain three times a day, until its specific effects are produced,

commencing ten or twelve days before attempting to induce labor. He uses the hot douche per vagina, until faintness is induced, and in ten or twelve hours labor commences. He has treated fifteen cases of deformed pelvis by this method, with success.

Dr. Geo. F. Lewis, of Bridgeport, exhibited an improved bivalve uterine speculum of his own invention.

*Voted*, That the Committee of Publication be authorized to make verbal alterations in the new code of By-Laws without altering the sense.

Henry Bronson, M.D., read an interesting biographical sketch of the late Prof. Worthington Hooker, M.D.

In view of the changes required by the adoption of new By-Laws and the anticipated revision of the Charter by the Legislature, the Nominating Committee proposed the following committees, which were elected, viz :—

*Committee on Matters of Professional Interest in the State*—K. Hunt, M.D., B. H. Catlin, M.D. and H. A. Carrington, M.D.

*Committee of Arrangements for next Convention*—M. Storms, M.D., A. W. Barrows, M.D. and Wm. M. Hudson, M.D.

*Voted*, That the Thanks of the Convention be tendered to the Common Council of New Haven for the use of their Council Chamber for the meetings of the Convention.

Adjourned to meet in Hartford at 3 P. M., the fourth Wednesday in May, A. D. 1871.

By invitation of the New Haven Medical Association, the members of the Convention and invited guests then partook of a sumptuous entertainment at the New Haven House.

Attest,

MOSES C. WHITE, *Secretary*.

113 George st., New Haven, Conn.

OFFICERS OF THE SOCIETY,  
FOR 1870--71.

---

PRESIDENT,  
CHARLES F. SUMNER, M.D., OF BOLTON.

VICE-PRESIDENT,  
GURDON W. RUSSELL, M.D., OF HARTFORD.

VICE-PRESIDENTS, *Ex-officio*.  
G. A. MOODY, M.D., OF PLAINVILLE.  
ALVAN TALCOTT, M.D., OF GUILFORD.  
ISAAC G. PORTER, M.D., OF NEW LONDON.  
S. S. NOYES, M.D., OF NEW CANAAN.  
SAMUEL HOLBROOK, M.D., OF THOMPSON.  
H. W. BUEL, M.D., OF LITCHFIELD.  
DENISON H. HUBBARD, M.D., OF CLINTON.  
A. R. GOODRICH, M.D., OF VERNON DEPOT.

TREASURER,  
JAMES C. JACKSON, M.D., OF HARTFORD.

SECRETARY,  
MOSES C. WHITE, M.D., OF NEW HAVEN.

STANDING COMMITTEES.

*Committee of Examination.*

CHAS. F. SUMNER, M.D., *Ex-officio*.  
IRA GREGORY, M.D.  
H. W. E. MATTHEWS, M.D.  
ASHBEL WOODWARD, M.D.  
LUCIAN S. WILCOX, M.D.  
RUFUS BAKER, M.D.  
LOWEL HOLBROOK, M.D.  
F. L. DICKINSON, M.D.

*Committee to Nominate Professors in the Medical Institution of  
Yale College.*

H. P. STEARNS, M.D.  
ROBERT HUBBARD, M.D.  
STEPHEN G. RISLEY, M.D.  
DAVID L. DAGGETT, M.D.  
H. W. BUEL, M.D.

*Committee to Nominate Physician to the Retreat for the Insane.*

ISAAC G. PORTER, M.D.  
SAMUEL HUTCHINS, M.D.  
H. M. KNIGHT, M.D.  
P. M. HASTINGS, M.D.  
G. L. PLATT, M.D.

*Committee of Publication.*

MOSES C. WHITE, M.D., *Ex-officio*.  
HENRY BRONSON, M.D.  
ALVAN TALCOTT, M.D.  
G. W. RUSSELL, M.D.  
L. J. SANFORD, M.D.

*Committee on Matters of Professional Interest in the State.*

E. K. HUNT, M.D.  
B. H. CATLIN, M.D.  
H. A. CARRINGTON, M.D.

*Committee of Arrangements.*

M. STORRS, M.D.  
A. W. BARROWS, M.D.  
WM. M. HUDSON, M.D.

*Committee on Registration.*

S. G. HUBBARD, M.D.  
IRVING W. LYON, M.D.  
GEO. L. BEERS, M.D.

*Dissertator*—FRANCIS BACON, M.D.  
*Alternate*—HENRY M. KNIGHT, M.D.

# MEMBERS OF THE SOCIETY.

## HONORARY MEMBERS.

|                         |           |                       |
|-------------------------|-----------|-----------------------|
| *FELIX PASCALIS,        | - - - - - | New York City.        |
| JAMES JACKSON,          | - - - - - | Boston, Mass.         |
| *JOHN C. WARREN,        | - - - - - | Boston, Mass.         |
| *SAMUEL L. MITCHELL,    | - - - - - | New York City.        |
| *DAVID HOSACK,          | - - - - - | New York City.        |
| *WRIGHT POST,           | - - - - - | New York City.        |
| *BENJAMIN SILLIMAN,     | - - - - - | New Haven.            |
| *GEORGE MCLELLAN,       | - - - - - | Philadelphia, Pa.     |
| *JOHN MACKIE,           | - - - - - | Providence, R. I.     |
| *CHARLES ELDREDGE,      | - - - - - | East Greenwich, R. I. |
| *THEODORIC ROMEYN BECK, | - - - - - | Albany, N. Y.         |
| *JAMES THACHER,         | - - - - - | Plymouth, Mass.       |
| EDWARD DELAFIELD,       | - - - - - | New York City.        |
| JOHN DELAMATER,         | - - - - - | Cleveland, O.         |
| *WILLIAM P. DEWEES,     | - - - - - | Philadelphia, Pa.     |
| *JOSEPH WHITE,          | - - - - - | Cherry Valley, N. Y.  |
| JACOB BIGELOW,          | - - - - - | Boston, Mass.         |
| WALTER CHANNING,        | - - - - - | Boston, Mass.         |
| *PHILIP SYNG PHYSIC,    | - - - - - | Philadelphia, Pa.     |
| *LEWIS HEERMAN,         | - - - - - | U. S. Navy.           |
| *DANIEL DRAKE,          | - - - - - | Cincinnati, O.        |
| *HENRY MITCHELL,        | - - - - - | Norwich, N. Y.        |
| NATHAN RYNO SMITH,      | - - - - - | Baltimore, Md.        |
| *VALENTINE MOTT,        | - - - - - | New York City.        |
| *SAMUEL WHITE,          | - - - - - | Hudson, N. Y.         |
| *REUBEN D. MUSSEY,      | - - - - - | Cincinnati, O.        |
| *WILLIAM TULLY,         | - - - - - | Springfield, Mass.    |
| RICHMOND BROWNELL,      | - - - - - | Providence, R. I.     |
| *WILLIAM BEAUMONT,      | - - - - - | St. Louis, Mo.        |
| SAMUEL HENRY DICKSON,   | - - - - - | Philadelphia, Pa.     |
| *SAMUEL B. WOODWARD,    | - - - - - | Northampton, Mass.    |
| *JOHN STEARNS,          | - - - - - | New York City.        |
| *STEPHEN W. WILLIAMS,   | - - - - - | Deerfield, Mass.      |
| *HENRY GREEN,           | - - - - - | Albany, N. Y.         |
| *GEORGE FROST,          | - - - - - | Springfield, Mass.    |
| WILLARD PARKER,         | - - - - - | New York City.        |
| *BENAJAH TUCKNOR,       | - - - - - | U. S. Navy.           |
| ALDEN MARCH,            | - - - - - | Albany, N. Y.         |
| *AMOS TWITCHELL,        | - - - - - | Keene, N. H.          |
| CHARLES A. LEE,         | - - - - - | New York City.        |

\* Deceased.

|                        |                    |
|------------------------|--------------------|
| *DAVID S. C. H. SMITH, | Providence, R. I.  |
| *JAMES M. SMITH,       | Springfield, Mass. |
| HENRY D. BULKLEY,      | New York City.     |
| J. MARION SYMS,        | New York City.     |
| *JOHN WATSON,          | New York City.     |
| FRANK H. HAMILTON,     | Brooklyn, L. I.    |
| *ROBERT WATTS,         | New York City.     |
| J. V. C. SMITH,        | New York City.     |
| O. WENDELL HOLMES,     | Boston, Mass.      |
| JOSEPH SARGENT,        | Worcester, Mass.   |
| *MASON F. COGSWELL,    | Albany, N. Y.      |
| FOSTER HOOPER,         | Fall River, Mass.  |
| *THOMAS C. BRINSMADE,  | Troy, N. Y.        |
| GEORGE CHANDLER,       | Worcester, Mass.   |
| GILMAN KIMBALL,        | Lowell, Mass.      |
| JAMES McNAUGHTON,      | Albany, N. Y.      |
| *USHER PARSONS,        | Providence, R. I.  |
| *S. D. WILLARD,        | Albany, N. Y.      |
| *JOHN WARE,            | Boston, Mass.      |
| EBENEZER ALDEN,        | Randolph, Mass.    |
| B. FORDYCE BARKER,     | New York City.     |
| JOHN G. ADAMS,         | New York City.     |
| JARED LINSLEY,         | New York City.     |
| A. J. FULLER,          | Bath, Me.          |
| SAMUEL H. PENNINGTON,  | Newark, N. J.      |
| FREDERICK N. BENNETT,  | Orange, N. J.      |
| *THOMAS W. BLATCHFORD, | Troy, N. Y.        |
| THOMAS C. FINNELL,     | New York City.     |
| N. C. HUSTED,          | New York City.     |
| JACOB P. WHITEMORE,    | Chester, N. H.     |
| JOHN GREEN,            | Worcester, Mass.   |
| THOMAS SANBORN,        | Newport, N. H.     |
| WILLIAM PIERSON,       | Orange, N. J.      |
| ARTHUR WARD,           | Belleville, N. J.  |
| HIRAM CORLISS,         | Washington, N. Y.  |
| E. K. WEBSTER,         | Boscawen, N. H.    |
| P. A. STACKPOLE,       | Dover, N. H.       |
| S. F. L. SIMPSON,      | Concord, N. H.     |
| A. T. WOODWARD,        | Vt.                |
| WM. McCULLOM,          | Vt.                |
| J. C. HUTCHINSON,      | Brooklyn, N. Y.    |
| BENJ. E. COTTING,      | Boston, Mass.      |
| HENRY L. BOWDITCH,     | Boston, Mass.      |
| SETH SHOVE,            | Katanah, N. Y.     |
| SAMUEL T. HUBBARD,     | New York City.     |

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PROPOSED FOR HONORARY MEMBERSHIP.

WM. S. BOWEN, M.D., Bridgeport.

---

\* Deceased.



## ORDINARY MEMBERS.

*The names of those who have been Presidents are in Capitals.*

### HARTFORD COUNTY.

G. A. MOODY, M.D., of Plainville, President

H. S. FULLER, M.D., of Hartford, Clerk.

|                                         |                                        |
|-----------------------------------------|----------------------------------------|
| HARTFORD, Henry Holmes, S. B. BER-      | ENFIELD, Thompsonville, Edward F. Par- |
| ESFORD, G. B. Hawley, G. W. Russell,    | sons, Roland L. Strickland.            |
| David Crary, P. W. Ellsworth, E. K.     | FARMINGTON, Frank Wheeler, Charles     |
| HUNT, J. S. Butler,* J. C. Jackson,     | Carrington.                            |
| A. W. Barrows, Thomas Miner,* Wil-      | PLAINVILLE, G. A. Moody.               |
| Ham Porter, John F. Wells, William R.   | GRANBY, (North,) Francis F. Allen,* G. |
| Brownell, P. M. Hastings, Edward        | W. Edwards.                            |
| Brinley, W. H. Tremaine, Lucian S.      | GLASTENBURY, H. C. Bunce.              |
| Wilcox, Henry P. Stearns, S. C. Pres-   | South Glastenbury, G. A. Hubbard.      |
| ton, Irving W. Lyon, Daniel Poll, Me-   | MANCHESTER, William Scott.*            |
| lancthon Storrs, Horace S. Fuller, John | NEW BRITAIN, B. N. Comings, S. W.      |
| O'Flaherty, Nathan Mayer, Wm. M.        | Hart, Geo. Clary, C. R. Hart, E. B.    |
| Hudson, George C. Jarvis, Morton W.     | Lyon, J. S. Stone.                     |
| Easton, W. A. M. Wainwright, E. M.      | ROCKY HILL, R. W. Griswold.            |
| Dunbar, David Crary, Jr., George F.     | SIMSBURY, Tariffville, G. W. Sanford.* |
| Hawley, J. B. Lewis, E. G. Bromley.     | Westogue, R. A. White.                 |
| BERLIN, E. Brandegee.                   | SOUTHINGTON, Julius S. Barnes,* N. H.  |
| BLOOMFIELD, Henry Gray.                 | Byington,* F. A. Hart.                 |
| BROADBROOK, E. R. Leonard.              | SUFFIELD, Aretus Rising,* J. K. Mason. |
| JANTON, Collinsville, R. H. Tiffany.    | WEST GRANBY, Justus D. Wilcox.*        |
| EAST GRANBY, Chester Hamlin.*           | WEST HARTFORD, Edward Brace.*          |
| EAST HARTFORD, S. L. Childs, Edward R.  | WETHERSFIELD, E. F. Cook,* A. S. War-  |
| Brownell.                               | ner.                                   |
| EAST WINDSOR HILL, Sidney W. Rock-      | WINDSOR, A. Morrison, S. A. Wilson.    |
| well, William Wood.                     |                                        |
| Warehouse Point, Marcus L. Fisk.        |                                        |

\* Over sixty years of age.

## NEW HAVEN COUNTY.

ALVAN TALCOTT, M.D., of Guilford, President.

EDWARD BULKLEY, M.D., of New Haven, Clerk.

|                                         |                                         |
|-----------------------------------------|-----------------------------------------|
| NEW HAVEN, E. H. Bishop,* Levi Ives,    | Birmingham, Ambrose Beardsley.          |
| David L. Daggett, George O. Sumner,*    | GUILFORD, Joel Canfield,* Alvan Talcott |
| David A. Tyler, HENRY BRONSON,*         | HAMDEN, Edwin D. Swift.                 |
| E. A. Park, S. G. Hubbard, H. W. E.     | MADISON, D. M. Webb.                    |
| Matthews, C. A. Lindsley, T. H. Totton, | MERIDEN, (West), B. H. CATLIN, Jr.      |
| John Nicoll, Moses C. White, H. Pier-   | H. Churchill, James G. Bacon, Jas. J.   |
| point, J. H. Beecher, Leonard J. San-   | Averill, Frederick J. Fitch, C. H. S.   |
| ford, Chas. L. Ives, Edward Bulkley,    | Davis.                                  |
| W. B. DeForest,* F. L. Dibble, T. Beers | MILFORD, Hull Allen,* L. N. Beardsley,  |
| Townsend, Geo. A. Ward, Evelyn L.       | Thomas Dutton.                          |
| Bissell, T. H. Bishop, Eli W. Blake,    | NAUGATUCK, J. D. Mears.*                |
| Henry A. DuBois, Francis Bacon, C.      | NORTH BRANFORD, Sheldon Beardsley.*     |
| O. Stockman, Charles A. Gallagher,      | NORTH HAVEN, R. F. Stillman.            |
| Robert Stone, W. Lockwood Bradley,      | ORANGE, West Haven, J. Martin Ames      |
| A. E. Winchell, O. F. Treadwell, H. A.  | OXFORD, Lewis Barnes.                   |
| Carrington, George F. Barker, O. W.     | SEYMOUR, Thos. Stoddard, S. C. Johnson  |
| Peck, L. M. Gilbert, J. W. Terry, Rob-  | Joshua Kendall.                         |
| ert S. Ives, F. J. Whittemore, Arthur   | SOUTHBURY, A. B. Burritt.*              |
| Ruckoldt, Leopold Spier, H. L. Wixon.   | South Britain, N. C. Baldwin.           |
| Fair Haven, Chas. S. Thomson,* W. H.    | WALLINGFORD, Nehemiah Banks & J.        |
| Thomson, Wm. M. White.                  | Harrison, Geo. E. Cragin.               |
| Westville, J. W. Barker.                | WATERBURY, G. L. Platt, John Deane      |
| BRANFORD, H. V. C. Holcomb, Newton      | George E. Perkins, Philo G. Rockwell    |
| B. Hall                                 | Thos. Dougherty, Alfred North, Es-      |
| CHESHIRE, A. J. Driggs, M. N. Chamber-  | ward L. Griggs.                         |
| lin.                                    | Woodbridge, David M. Killwood.          |
| DERBY, Charles H. Pinney.               |                                         |

## NEW LONDON COUNTY.

ISAAC G. PORTER, M.D., of New London, President.

ALBERT T. CHAPMAN, M.D., of Mystic, Clerk.

|                                        |                                     |
|----------------------------------------|-------------------------------------|
| NEW LONDON, Nathaniel S. Perkins,*     | LEBANON, Ralph Green.*              |
| ISAAC G. PORTER,* D. P. Francis,       | MYSTIC, Mason Manning,* Albert T.   |
| Robert A. Manwaring, A. W. Nelson,     | Chapman.                            |
| F. W. Brannon, Henry Potter.           | NORWICH, Richard P. Tracy,* Eph.    |
| BOZRAH, Samuel Johnson.*               | Dyer,* Elisha Phinney,* A. B. Hall  |
| COLCHESTER, Ezekiel W. Parsons,* Fred- | Lewis S. Paddock, Chas. M. Carleton |
| erick Morgan.*                         | F. S. Abbott, Wm. S. C. Perkins     |
| FRANKLIN, ASHBEL WOODWARD.             | OLD LYME, Richard Noyes,* Geo. W.   |
| Greenville, Wm. Witter.                | Harris.                             |
| GROTON, Mystic River, A. W. Coates,    | STONINGTON, William Hyde.*          |
| John Gray.                             | Mystic Bridge, E. Frank Coates.     |

\* Over sixty years of age.

## FAIRFIELD COUNTY.

SAMUEL S. NOYES, M.D., of New Canaan, President.

GEORGE L. BEERS, M.D., of Bridgeport, Clerk.

|                                         |                                         |
|-----------------------------------------|-----------------------------------------|
| AIRFIELD, Edward H. Winslow.            | NORWALK, Ira Gregory,* Samuel Lynes,    |
| BRIDGEPORT, Justus Sherwood,*           | James G. Gregory, James E. Barbour,     |
| STAMFORD, William H. Mather.            | W. A. Lockwood.                         |
| RIDGEPORT, William B. Nash,* David      | South Norwalk, M. B. Pardee, R. L. Hig- |
| H. Nash, Robert Hubbard, H. L. W.       | gins.                                   |
| Burritt, Elijah Gregory, Geo. L. Beers, | RIDGEFIELD, O. S. Hickok.               |
| Andrew J. Smith, Augustus H. Aber-      | STAMFORD, N. D. Haight,* W. H. Trow-    |
| nethy, George F. Lewis, James R.        | bridge, James H. Hoyt.                  |
| Cumming, Gustave Ohnesorg, George       | North Stamford, Geo. W. Birch.          |
| L. Porter, James Brown.                 | STRATFORD, Roger M. Gray.               |
| BROOKFIELD, A. L. Williams.             | TRUMBULL, George Dyer.*                 |
| ANBURY, E. P. Bennett,* James Bald-     | WESTPORT, George Blackman,* George      |
| win,* William C. Bennett, James Bald-   | B. Bouton.                              |
| win.                                    | WILTON, A. E. Emery.                    |
| ARLEN, Samuel Sands.                    | HUNTINGTON, Gould A. Shelton.           |
| NEW CANAAN, Samuel S. Noyes,* Lewis     |                                         |
| Richards,* William G. Brownson.         |                                         |

## WINDHAM COUNTY.

LOWELL HOLBROOK, M.D., of Thompson, President.

SAMUEL HUTCHINS, M.D., of West Killingly, Clerk.

|                                       |                                     |
|---------------------------------------|-------------------------------------|
| WINDHAM, E. Huntington.               | SCOTLAND, Calvin B. Bromley.*       |
| ASHFORD, John H. Simmons.             | PLAINFIELD, Moosup, Wm. A. Lewis,   |
| BROOKLYN, James B. Whitcomb,* Wm.     | Chas. H. Rogers.                    |
| Woodbridge.                           | THOMPSON, Lowell Holbrook, Charles  |
| JANTERBURY, John Matteson.            | Hosford.                            |
| HAPLIN, Orrin Witter.                 | VOLUNTOWN, Harvey Campbell.*        |
| HAMPTON, Dyer Hughes.*                | WESTFORD, Farnam O. Bennett.        |
| KILLINGLY, Justin Hammond.*           | WOODSTOCK, Lorenzo Marcy.*          |
| South Killingly, Daniel A. Hovey.*    | East Woodstock, John Witter.        |
| West Killingly, Samuel Hutchins.      | South Woodstock, A. S. Leonard.     |
| East Killingly, Edwin A. Hill.        | West Woodstock, Milton Bradford.*   |
| PLAINFIELD, WM. M. COGSWELL.*         | WINDHAM, Willimantic, Fred. Rogers, |
| COMFERT, Hiram Holt,* Lewis Williams. | T. Morton Hills, L. F. Bugbee.      |
| PUTNAM, H. W. Hough,* Daniel B.       | Windham Center, H. E. Balcan.       |
| Plympton.                             |                                     |

\* Over sixty years of age.

## LITCHFIELD COUNTY.

H. W. BUEL, M.D., of Litchfield, President.

J. W. BIDWELL, M.D., of West Winsted, Vice President.

H. E. GATES, M.D., of Litchfield, Clerk.

|                                                                                                          |                                                                                    |
|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| LITCHFIELD, Josiah G. Beckwith,* H. W. Buel, D. E. Bostwick, Geo. W. Bell, H. E. Gates, William Porter.† | Lakeville, Benj. A. Welch,* W. Buel H. M. Knight.                                  |
| NORTHFIELD, D. B. W. Camp.*                                                                              | SHARON, Ralph Deming,* William W. Knight.                                          |
| BARKEHAMPTON, Riverton, Francis J. Young.                                                                | Wolcottville, Erastus Bancroft,* Jeremiah W. Phelps, T. S. Hanchett, A. E. Barber. |
| CORNWALL, Burritt B. North.*                                                                             | WARREN, John B. Derickson.                                                         |
| West Cornwall, Edward Sanford.                                                                           | WASHINGTON, Remus M. Fowler,* Orlando Browne.                                      |
| MORRIS, Garry H. Miner.*                                                                                 | New Preston, Sidney H. Lyman, Edward P. Lyman.                                     |
| NEW MILFORD, J. K. Bacon.                                                                                | WATERTOWN, W. S. Munger.                                                           |
| Gaylord's Bridge, G. H. St. John.*                                                                       | WINCHESTER, West Winsted, James Welch,* John W. Bidwell.                           |
| NORFOLK, William W. Welch, John H. Welch.                                                                | WOODBURY, Charles H. Webb, Hiram W. Shove.                                         |
| PLYMOUTH, Samuel T. Salisbury.                                                                           | Terryville, Cornelius W. Bull.†                                                    |
| Thomaston, William Woodruff,* Ralph S. Goodwin.†                                                         |                                                                                    |
| ROXBURY, Myron Downs.*                                                                                   |                                                                                    |
| SALISBURY, John H. Blodget.                                                                              |                                                                                    |

## MIDDLESEX COUNTY.

DENISON H. HUBBARD, M.D., of Clinton, President.

MINER C. HAZEN, M.D., of Haddam, Clerk.

|                                                                                                                                        |                                               |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| MIDDLETOWN, Elisha B. Nye, George W. Burke, John Ellis Blake, Rufus Baker, F. D. Edgerton, Noah Cressy, Seldon W. Noyes, Abraham Shea. | DURHAM, R. W. Mathewson.                      |
| CHATHAM, Middle Haddam, Albert B. Worthington.                                                                                         | ESSEX, Alanson H. Hough,* Charles E. Hubbard. |
| CHESTER, Sylvester W. Turner.                                                                                                          | HADDAM, Miner C. Hazen.                       |
| CLINTON, Denison H. Hubbard.*                                                                                                          | KILLINGWORTH, G. P. Reynolds.                 |
| CROMWELL, Ira Hutchinson.*                                                                                                             | OLD SAYBROOK, Asa H. King,* J. E. Grannis.    |
|                                                                                                                                        | PORTLAND, George O. Jarvis,* C. A. Scott.     |
|                                                                                                                                        | SAYBROOK, Deep River, Edwin Bidwell.          |

## TOLLAND COUNTY.

A. R. GOODRICH, M.D., of Vernon Depot, President.

GILBERT H. PRESTON, M.D., of Tolland, Clerk.

|                                                 |                                                                      |
|-------------------------------------------------|----------------------------------------------------------------------|
| TOLLAND, Oliver K. Isham,* G. H. Preston.       | Mansfield Depot, Norman Brigham,† Julian N. Parker.                  |
| BOLTON, CHAS. F. SUMNER.                        | SOMERS, Orson Wood.*                                                 |
| COVENTRY, Maurice B. Bennett.                   | STAFFORD, Wm. N. Clark.*                                             |
| South Coventry, Timothy Dimock,* Henry S. Dean. | West Stafford, Joshua Blodgett.*                                     |
| ELLINGTON, J. A. Warren.                        | Stafford Springs, C. B. Newton.                                      |
| HEBRON, W. L. M. Brown.                         | Vernon Depot, A. R. Goodrich.                                        |
| MANSFIELD, Wm. H. Richardson.*                  | Rockville, Stephen G. Risley, Francis L. Dickinson, N. Gregory Hall. |
| Mansfield Center, O. B. Griggs.                 |                                                                      |

\* Over sixty years of age.

† Admitted June 23, 1870.

## APPENDIX A.

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THE Committee of Examination would respectfully report that they met at the Medical College for the Commencement Examinations, July 2, 1869. There were present, representing the Society, Charles F. Sumner, M.D., of Bolton; Dennison H. Hubbard, M.D., of Clinton; Henry W. E. Matthews, M.D., of New Haven; Ashbel Woodward, M.D., of Franklin, and Lucien S. Wilcox, M.D., of Hartford—and representing the Faculty of the College, Professors Silliman, Hubbard, Lindsley, White, Ives, Bacon, Sanford and Barker. Dr. Sumner, Vice-President of the Society acted as Chairman of the Board. Dr. Wilcox was appointed to report the proceedings of the Board to the Society.

Dr. Henry A. Carrington was appointed to address the graduates in 1870, and Dr. Henry M. Knight, alternate.

Four candidates for Degrees were examined. Two were recommended—Mr. GEORGE B. FARNHAM, of New Haven; Thesis—Anæsthesia, with a mention of several Anæsthetics—and Mr. JOHN FREDERICK BARNETT, of West Haven; Thesis—General remarks on Cancer, and that variety of it known as Scirrhus.

The Committee met again at the Medical College for the Annual Examination, Jan. 13, 1870. Representing the Society were Henry Bronson, M.D., of New Haven, Ex-officio, President; Dennison H. Hubbard, M.D., of Clinton; Lewis Williams, M.D., of Pomfret; Henry W. E. Matthews, M.D., of New Haven; Charles F. Sumner, M.D., of Bolton; Ashbel Woodward, M.D., of Franklin, and Lucien S. Wilcox, M.D., of Hartford—and representing the Faculty, Professors Silliman, Hubbard, Lindsley, White, Sanford, Bacon, Ives and Barker.

Two candidates sustained satisfactory examinations and were recommended for Degrees—Mr. WILLIS GEORGE ALLING, of New Haven; Thesis—General Reflections on Chronic Disease—and Mr. FRANK EDWIN CASTLE, of Westville; Thesis—Diphtheria.

The public exercises usual for the evening were omitted. The appointments were continued another year.

Respectfully submitted,

L. S. WILCOX, *Secretary.*

May 25, 1870.

# APPENDIX B.

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## CHARTER AND BY-LAWS

OF THE

## CONNECTICUT MEDICAL SOCIETY

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### CHARTER.

GENERAL ASSEMBLY, MAY SESSION, 1870, Amending the Charter of the Connecticut Medical Society.

*Resolved by this Assembly:*

SEC. 1. That the Physicians and Surgeons now members of the Connecticut Medical Society, and all Physicians and Surgeons who shall be associated with them in pursuance of the provisions of this act, shall be and remain a body politic and corporate, by the name of THE CONNECTICUT MEDICAL SOCIETY; and by that name they and their successors shall and may have perpetual succession; shall be capable of suing and being sued, pleading and being impleaded, in all suits of whatever name and nature; may have a common seal, and may alter the same at pleasure; and may also purchase, receive, hold and convey any estate, real or personal, to an amount not exceeding one hundred thousand dollars.

SEC. 2. That the superintendence and management of the Society shall be vested in a body to be known and called by the name of "The President and Fellows of the Connecticut Medical Society;" which body shall have power to prescribe the duties of its officers and members, and fix their compensation; to establish the conditions of admission, dismission and expulsion; to lay

tax from time to time upon the members, not exceeding five dollars in each year; to collect the same, and to hold and dispose of all moneys or other property belonging to the Society in such manner as they may think proper to promote the objects and interests of the Society; and in general, to make such by-laws and regulations for the due government of the Society, not repugnant to the laws of the United States or of this State, as may be deemed necessary.

SEC. 3. That the President and Fellows of the Connecticut Medical Society shall be composed of the officers of the Society for the time being, and of Fellows, (not less than three nor more than five) chosen by and from each of the County Associations.

SEC. 4. That hereafter no one shall be admitted to membership, in any County Association having connection with this Society, unless he shall have received the degree of Doctor of Medicine, or have been admitted *ad eundem*, from such medical authorities as this Society shall deem proper to recognize.

SEC. 5. It shall be the duty of the several clerks of the County Associations, in their respective counties, to collect and pay over to the Treasurer of the Society all such taxes as shall from time to time be laid by the President and Fellows, upon the members of the Society as aforesaid; and for that purpose said clerks may procure a warrant under the hand of a justice of the peace, against such member or members of the Society as shall neglect or refuse to pay the taxes so imposed upon them as aforesaid; which warrant any justice of the peace is hereby empowered to issue, and said warrant shall be directed to the sheriff or his deputies of the county in which such delinquent member or members reside; and said sheriff or either of his deputies, on receiving such warrant, may therewith proceed to enforce the collection of such tax or taxes, in the same manner, and with the addition of the same fees, as are by law prescribed and allowed to the collectors of town taxes. And if any of the clerks of the County Associations shall neglect or refuse to collect the taxes entrusted to him to collect, by the time the same are made payable, or having collected the same, shall neglect or refuse to pay the same over to the Treasurer of the Society, such Treasurer may cause a suit or suits to be instituted against such delinquent, in the name of the Society, before any court proper to try the same, and the same to pursue to final judgment; and the clerks shall be allowed and receive a compensation of five per centum on all moneys collected by them respectively, and paid to the Treasurer of the Medical Society.

SEC. 6. That these amendments shall take effect on the day of its passage; and so much of the Act entitled an Act to incorporate the Connecticut Medical Society, approved June 5, 1834, and all such acts in addition thereto and amendments thereof as are inconsistent herewith, be, and the same are hereby repealed.—  
*Approved July 8th, 1870.*

## State of Connecticut, ss.

### OFFICE OF SECRETARY OF STATE

*I hereby certify that the foregoing is a true copy of record in this office.*

In Testimony whereof, *I have hereunto*  
*set my hand, and affixed the Seal*  
*of said State, at Hartford, this*  
*29th day of July, A. D. 1870.*

{ L. S. }

*Thos. M. Waller, Secretary of State.*



## BY-LAWS.

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### CHAPTER I.

#### *Titles and Meetings.*

SECTION 1. This Society shall be known by the name of THE CONNECTICUT MEDICAL SOCIETY; and it shall be composed of the members of the County Associations and of Honorary Members.

SEC. 2. The Connecticut Medical Society shall hold an Annual Convention on the Thursday following the fourth Wednesday in May. The Annual Convention shall assemble alternately at New Haven and Hartford. Ten members shall constitute a quorum. If the President and Vice President be absent, the Society may choose a President pro tempore.

SEC. 3. The President and Fellows of the Connecticut Medical Society shall hold an Annual Meeting.

SEC. 4. The County Associations shall hold in their respective counties an annual meeting.

### CHAPTER II.

#### *Officers.*

SECTION 1. The officers of the Society shall consist of a President, Vice President, Treasurer, Secretary, Committee on matters of professional interest in the State, and the Presidents of the County Associations, who shall be Vice Presidents *ex-officio*.

SEC. 2. It shall be the duty of the President to preside at the Annual Convention, and at all the meetings of the President and Fellows, preserve order, state and put questions, call for reports of Committees, enforce the observance of the by-laws, and perform such other duties appropriate to his office, as the Society shall assign him. At the annual meeting of the President and Fellows, the President shall present such matters for their consideration as he may think require attention. At the Annual Convention he shall deliver an address on some suitable subject.

SEC. 3. In the absence or disability of the President, the Vice President shall preside, and in case of a vacancy in the office of President, caused by death, resignation or removal, all the duties pertaining to it shall devolve on the Vice President.

SEC. 4. It shall be the duty of the Treasurer to take charge and keep a correct account of all moneys belonging to the Society, together with the receipts and disbursements, and render annually to the President and Fellows a statement of

all moneys received and paid by him. He shall preserve, for the benefit of the Society, all donations and other moveable property committed to his charge, and keep an exact list of the same, together with the names of the respective donors. He shall not pay any money out of the treasury, nor make any investment of the funds of the Society, or change the same, but by order of the President and Secretary. And he shall deliver to his successor all books and papers, with the balance of cash or other property of the Society in his hands.

SEC. 5. The Secretary shall have charge of the records of the Society, and all the meetings of the President and Fellows, and the annual Convention of the Society, record all the transactions of the same, give true copies of them, when thereto requested, conduct their correspondence, and have the custody of the seal of the Society. The Secretary shall be *ex-officio* chairman of the Committee of Publication.

The Secretary shall cause a notice to be put up each year in at least three Houses in the town in which the Annual Convention meets, stating the time and place of meeting, at least one day before said meeting.

The Secretary shall send each year an extra copy of the published "Proceedings" of the Society, to each of the Clerks, for the use of the County Association; also to other State Societies and to Honorary Members.

SEC. 6. The "Committee on matters of Professional Interest in the State" shall consist of three, and be considered members *ex-officio* of "the President and Fellows of the Connecticut Medical Society," to be elected annually by ballot, the first named to be Chairman, whose duty it shall be, at every Annual Convention, to report the progress of our science, particularly in Connecticut—remarkable and instructive cases of disease, that may have come to their knowledge—interesting facts or discoveries relating to medicine—all circumstances connected with epidemics, (if any have prevailed,) and the treatment adopted, whether successful or otherwise—in short, whatever influences may concern the health of the citizens of Connecticut. And the more effectually to perfect this report, it shall be the duty of each County and other Association represented in this Society, annually to appoint one of its members as a Reporter, who shall furnish to this Committee, on or before the first day of May, all the information he can get relative to these subjects within the limits of the district in which the local association exists.

SEC. 7. Any officer of the Society may, for sufficient reasons, resign his office or may be removed therefrom by order of the President and Fellows, for neglect, inattention or mal-conduct; in either of which cases, or on the death of any officer, the President and Fellows shall supply the office vacated as soon as may be convenient.

SEC. 8. The necessary expenses of the Treasurer, Secretary, and Chairman of the "Committee on matters of professional interest in the State," shall be paid.

### CHAPTER III.

#### *President and Fellows of the Connecticut Medical Society.*

SECTION 1. There shall be an annual meeting of the President and Fellows of the Connecticut Medical Society, on the day preceding the Annual Convention of the Society, and in the same city where the Convention is to be held.

**SEC. 2.** The President, Vice President, and *ex-officio* Vice Presidents, Treasurer, Secretary, Committee on matters of Professional interest, and Fellows, shall be known and called by the name of the President and Fellows of the Connecticut Medical Society; a majority of whom legally assembled together shall be a quorum for the transaction of any business; and shall have power to make by-laws for the regulation and government of the Society, and for the promotion of the objects of the same, not repugnant to the laws of the United States or of this State; to expel any member of the Society for misconduct; to make rules for the admission of members of the Society, and for their dismissal from the same; to lay a tax upon each member of the Society, not exceeding five dollars in each year; to dispose of the moneys thus raised, and all other property of the Society in such manner as they may think proper to promote the objects and interests of the Society.

The President and Fellows at any annual meeting and after one year's nomination of every candidate, and not otherwise, may, by a major vote of those present, elect eminent physicians not resident within this State, to be honorary members of this Society. But those elected shall not exceed three in number in any year.

**SEC. 3.** At all the meetings of the Fellows for the transaction of business, he President of the Society, or in case of his absence, the Vice President shall preside; and in case of the absence of the President and Vice President, the Fellows present may elect one of their own number as President for the occasion.

**SEC. 4.** The President of the Society, or in case of his death, or inability, the Vice President, on any special occasion, shall have power to call a meeting of the President and Fellows, at such time and place as he may think proper, when applied to by any five Fellows, two of whom shall be members of different County Societies, and he shall cause notice thereof to be given by the Secretary to each member, of the time and place of meeting, which notice shall be mailed at least one week previous to said meeting; and the President shall also cause twenty days' notice of the special meeting to be given in two newspapers printed in this State.

**SEC. 5.** The Committee of Examination, the Committee to nominate Professors in the Medical Institution, and the Committee to nominate the Physician to the Retreat for the Insane, shall be chosen by ballot. Only two persons shall be elected on each of these Standing Committees each year; the first two on the list to be dropped, and the two chosen to be placed at the bottom; but any person may be re-elected. These Standing Committees of the Society shall report annually to the President and Fellows, whenever they have had occasion to act in their official capacity.

The Committee of Publication shall be three in number, of which the Secretary shall be one, and the others shall be chosen by ballot.

The Nominating Committee shall consist of one from every County Association represented; and the Fellows of each of said Associations respectively, shall choose from among themselves one to represent them on said Committee. This Committee shall report at the time appointed for the election.

All other Committees shall be appointed by the presiding officer.

**SEC. 6.** It shall be the duty of the Fellows of the several counties to present to the Annual Convention short obituary sketches of deceased members, which shall be revised, amended or condensed by the Committee of Publication, as they deem expedient.

SEC. 7. The President shall at an early hour of the session appoint a Committee of three Fellows, of which the Secretary shall be one, to be called the Business Committee, to whom all reports of cases, dissertations or other papers designed to be read at the Annual Convention shall be handed. And this Committee shall examine them and recommend the manner and order in which they shall be presented to the Convention.

## CHAPTER IV.

### *County Associations.*

SEC. 1. The members of the Connecticut Medical Society shall meet annually in their respective counties, and at such other times and places as have been or may hereafter be agreed upon by them; provided the annual meeting shall be at least four weeks before the fourth Wednesday in May. Each County Association shall be known and called by the name of the County in which it exists, and shall choose from among themselves a President, Clerk, and such other officers as may be found necessary. At their annual meeting, they shall elect by ballot, of their own number, in each county, five, except in the counties of Middlesex and Tolland, and in each of those counties, three Fellows, to have part in the superintendence and management of the Society.

SEC. 2. The County Associations in their respective counties, shall have power to adjourn meetings and to call special meetings, from time to time, as they shall deem expedient; and they may adopt such by-laws and regulations for their own government, and for the promotion of Medical Science, as they may think proper, not contrary to the laws of the State or the by-laws of the Connecticut Medical Society.

SEC. 3. Any person of good moral character, found to possess the qualifications prescribed by the Charter and By-Laws of this Society, may, by any County Association, at any meeting legally holden, be admitted to membership, by a major vote of the members present, by ballot, provided he is residing and practicing in said county, and makes application for that purpose.

SEC. 4. All persons so elected, shall, within one year after such election, subscribe the By-Laws of the Society, or otherwise declare in writing their assent to the same, or such election shall be void.

SEC. 5. Any County Association may, by a major vote, dismiss from the Society any member who shall remove from this State, or who shall leave the profession for other pursuits.

SEC. 6. Any County Association may, if it is deemed expedient, recommend to the President and Fellows, for dismission from the Society, any member residing in that county, who shall apply for such dismission by a written request to that effect delivered to the Clerk of said County Association at least ten days before the time of holding any legal County meeting; and also any member who shall refuse or neglect to pay taxes; and upon the approval of such recommendation by the President and Fellows, in annual meeting, the connection between such member and the Society shall be dissolved. *Provided*, That no member shall be honorably dismissed from the Society, until all his taxes shall have been paid.

SEC. 7. All violation of the By-Laws of the Connecticut Medical Society, or of the Medical Police adopted by the Society, or of the Rules and Regulations passed

by the County Association, in conformity with the By-Laws of the State Society, may be prosecuted and tried in the respective County Associations, under the following regulations, viz:—The member accusing another of a violation of any of the beforementioned regulations, shall make a statement, in writing, of the transaction which he deems a misdemeanor, and lay the same before a Fellow of the Society; and such Fellow shall issue a notification to the accused, to appear before the next County Meeting, stating the time when and the place where it is to be held, to defend, if he sees fit, against such accusation. A copy of such accusation and notification shall be left with the accused, or at his last usual place of abode, at least twelve days previous to the time of holding the next County Meeting. And the accuser shall cause the said accusation and notification to be served and returned to the Clerk of the County Association, on or before the day of their sitting; and the offender, upon conviction, may be punished, by admonition, by suspension from the privileges of the Society for a period not exceeding two years, or by expulsion from the Society. *Provided*, That no sentence of expulsion shall be valid, until confirmed by the President and Fellows, in Annual Meeting.

SEC. 8. When a new Clerk is chosen in any of the County Associations, his predecessor shall deliver over to him all the records and papers appertaining to the office, retaining copies of the same, if he think proper.

SEC. 9. It shall be the duty of the several Clerks of the County Associations, in their respective Counties, to collect and pay over to the Treasurer of the State Society, all such taxes as shall from time to time be laid by the President and Fellows upon the members of the Connecticut Medical Society. And the Clerks shall be allowed a compensation of five per cent. on all moneys collected by them respectively and paid to the Treasurer of the State Society. *Provided* such additional sum as the County Association may direct, not exceeding five per cent. of the moneys collected, may be retained by the Clerk to pay the expenses of the meetings of said Association.

If any members neglect or refuse to pay the taxes legally imposed upon them, it shall be the duty of the Clerks of the County Associations to which they belong, to proceed against such delinquent members, according to law, in the collection of the same. And if any of the Clerks of the County Associations shall neglect or refuse to collect the taxes entrusted to him to collect, by the time the same are due; or having collected the same, shall neglect or refuse to pay the same over to the Treasurer of the State Society, such Treasurer may cause suit to be instituted against such delinquent, in the name of the Society, before any Court proper to try the same, and the same pursue to final judgment. The expenses incurred by the Clerks of the County Associations in collecting taxes, shall be canceled and paid by the Treasurer.

SEC. 10. The Clerks shall transmit the names and places of residence of the Fellows, and of the person recommended for a gratuitous course of lectures, to the Secretary, before the first day of May in each year, that the Secretary may have ample time to arrange the programme for the Annual Convention. They shall also forward to the Secretary, and a duplicate copy to the Treasurer, on or before the annual meeting, the names of the members in their respective County Associations, and their place of residence; and those who fail in the performance of this duty, shall be subject to a fine of five dollars, to be collected by the Treasurer.

SEC. 11. The Clerks shall transmit to the Treasurer the names of members delinquent in taxes, with the amounts severally due from each, and what notice he has given to each delinquent of his indebtedness.

## CHAPTER V.

### *Members.*

SEC. 1. Each member of the Society shall have free access to the records of the Society, and of the County Association to which he belongs, and may take attested copies thereof if he request them.

SEC. 2. All the members of the Connecticut Medical Society have the privilege of attending all meetings of the President and Fellows, and performing all the duties of Fellows, except voting. Honorary Members shall have the privilege of a seat at the Annual Convention, and of taking part in discussions; but they shall not vote on any question, nor be eligible to any office.

SEC. 3. The payment of the annual tax shall be optional with all members over sixty years of age.

SEC. 4. Any member of the Society who shall make, vend, or publicly recommend, or who is directly or indirectly interested in the manufacture, use or sale of any nostrum or patent medicine, shall not be eligible to any office, and is liable to be suspended from the privileges of the Society, or to expulsion.

SEC. 5. No member of the Society shall hold professional consultation or intercourse with any other than licensed Physicians and Surgeons in regular standing.

SEC. 6. It shall be the duty of each member of this Society to accuse any other member of the Society, for such misdemeanors as he deems contrary either to the By-Laws, Medical Police, or Rules and Regulations, adopted by the Society; and the accuser shall proceed in the manner directed in Chapter IV, Sec. 7, of By-Laws.

## CHAPTER VI.

### *Elections.*

SEC. 1. All elections for Officers of the Society shall be at the Annual Meeting of the President and Fellows, and by ballot; and a majority of votes shall be requisite to elect.

SEC. 2. Before the President and Fellows proceed to ballot, the Committee on Nominations shall present a list of candidates for the several officers to be elected; and, an opportunity having been given to the members to make other nominations, the Society shall then be called to ballot; if no election is obtained on the first canvass, the two highest shall be the candidates for the next balloting. When a choice is made, the persons chosen shall hold their office during one year, and until others shall be elected.

SEC. 3. The Nominating Committee shall report names for delegates to the American Medical Association, and to corresponding Societies, and shall also nominate a Committee of Arrangements, whose duty it shall be to provide convenient accommodations for the next Annual Convention, and an Anniversary Chairman, who shall preside at the dinner of the next year. The Anniversary Chairman shall be one of the Committee of Arrangements.

## CHAPTER VII.

The Society adopts the Code of Ethics of the American Medical Association, as a part of its Constitution and By-Laws.

No article of the By-Laws, as now adopted, shall be altered or amended, except the subject proposed shall have been submitted in writing to the consideration of the President and Fellows at a previous annual meeting; and a vote of two-thirds of the members present in that body, shall be necessary to ratify and confirm any amendment.

On the day of the Annual Convention, a dinner shall be provided, at the expense of those members partaking of it. Delegates from other societies, and invited guests, shall be provided for under the direction of the Committee of Arrangements.

An invitation to the dinner may be given to such eminent persons as the President of the Society, or Anniversary Chairman, shall think proper to notice in this manner.

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The following By-Laws not having been repealed, are supposed to be still in force.—*Sec. Conn. Med. Soc.*

In place of the old debenture system, which is abolished, the taxes of the President and Fellows and Dissertator in attendance at the Convention, shall be abated.

The Fellows of the Society shall be a Committee of Abatements in their respective Counties.

No debenture bill shall be paid by the Treasurer, that is more than seventeen years old.

Each County Meeting shall have the power to examine and immediately expel any member notoriously in the practice of Homeopathy, Hydropathy, or any other form of quackery, without any formal trial, the same to be ratified by the succeeding Convention, any By-Laws to the contrary notwithstanding. (*See By-Laws of 1854.*)

*Resolved*, That the several County Meeting, are hereby instructed to continue their investigations in relation to the manufacture, sale, recommendation and use of nostrums or Patent Medicines, by their Members, and to present for trial any Member so offending. *Passed, May, 1853.*

*Resolved*, That the Several County Meetings be requested to investigate the subject of Members of the Society consulting with irregular practitioners, and enforce the by-law in such case made and provided. *Passed, May, 1857.*

*Resolved*, That it shall be the duty of the Clerks of the several Counties to report to the Secretary of the State Convention, on the first day of its session, the names, ages and diseases of the Members of this Society who may have died during the year preceding the 1st of April in each year, in their several County Societies, and that the Secretary be directed to append these statistics to the catalogue of Members of the Society in the published proceedings of the Annual Convention. *Passed, May, 1849.\**

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\* This By-Law is modified by the adoption of the plan of a Mortuary Tablet introduced this year, 1876.

*Resolved*, That this Society require of the several County Meetings to demand all Members who persistently refuse or neglect to pay their annual taxes. *Passed, May, 1860.*

*Whereas*, Doubts have existed as to the construction of membership after absence from this State—

*Resolved*, That the privileges and obligations of membership revert to a regular physician on returning to the State. *Passed, May, 1864.*

## CHAPTER VIII.

### *Honorary Degrees and Honorary Membership.*

*Resolved*, That the Committee on Honorary Degrees be directed to recommend none who have commenced the practice of medicine since the year 1815. *Passed, May, 1831.*

*Resolved*, That no Member of this Society shall be recommended to the President and Fellows of Yale College for the Honorary Degree of Doctor of Medicine, until such Member shall have been in the practice of medicine for a period of twenty-five years, at least, and no more than one shall be recommended from this State in any one year, and such degree shall be conferred solely on the ground of distinguished merit and honor of the individual. *The Committee on Honorary Degrees in 1854 recommended the adoption of the above Resolution, and the Report of the Committee was accepted.*

*Resolved*, That the names of candidates for the Honorary Degree of Doctor of Medicine and Honorary Membership be published in the Proceedings of the Society, and be not acted upon for one year subsequent to the time such nominations are made. *Passed, May, 1860.*

## CHAPTER IX.

### *Of Medical Students.*

1. Before any person can be admitted into the office of a Physician, as a Student of Medicine, he shall furnish evidence of good moral character, and shall be examined by the preceptor and one of the Fellows of this Society; the examination to be upon the subjects of English education, and Greek and Latin languages. If found qualified, he is to receive a certificate to that effect, and be enrolled as a regular student of medicine. *Passed, May, 1847.*

2. The following certificate of studies shall be required of all candidates for examination for a Degree:

I hereby certify that \_\_\_\_\_ has pursued the study of Medicine with me from \_\_\_\_\_ to \_\_\_\_\_ and that he recited regularly on [here insert the branches pursued] during the above mentioned time.

\_\_\_\_\_, Physician.

*Resolved*, That it is the opinion of this Convention, that in case the student recommended from any County is not necessitous and meritorious, it has full power to declare that a vacancy exists, and may proceed to fill the same. *Passed, May, 1846.*



*Order of Business at the Annual Meeting of the President and Fellows.*

## Organization.

Presentation of certificates to the Secretary, who, with two Fellows appointed by the President, shall examine the same, and the Secretary shall report the names of those approved, together with the names of the Officers present, and Delegates from corresponding Societies.

Business Committee, appointed by President.

Unfinished business of previous year disposed of.

Committee on Nominations, appointed by county delegations.

Reception and reference, without debate, of communications, resolves, &c., from the several Counties and members of the Convention.

Committee to nominate one or more Essayists for the next year, which Committee shall report at the Annual Convention.

Reports of Committee appointed on County Communications, &c.

Treasurer's Report.

Committee to audit the Treasurer's report.

Report of the Nominating Committee.

Election of Officers.

Reports of Standing Committees.

Reports of Committees in the order in which business was brought forward in the meeting.

Miscellaneous business. Adjournment.

*Order of Business in Annual Convention.*

## Organization.

List of New Members read by the Secretary.

The President's Address.

Written Reports, Essays, Reports of Delegates to and reception of Delegates from other Societies, &c., in the order arranged by Business Committee.

Any propositions or suggestions, conducive to the welfare of the Society, or to the general interests of Medicine, may be brought forward by any member. The Society shall decide by vote whether to engage in the consideration of the same.

It will be in order at any time, if questions of interest are suggested by the debates in Convention, to appoint a special committee on the same, to report at the next Convention.

Communications offered by persons not members of the Society, shall be received by a major vote of the Society.

Report of Committee to nominate Essayists for ensuing year.

Adjournment to dinner.

The Order of Business may be suspended by a vote of two-thirds of those present and voting.

## EDITORIAL NOTICES.

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N. B.—The Connecticut Medical Society are not responsible for the opinions advanced in any of the papers they publish, except where reports of Committees are approved by special vote.

The Committee of Publication would suggest to contributors the importance of **GREAT CARE IN THE PREPARATION OF PAPERS INTENDED FOR PUBLICATION**, as it sometimes causes unnecessary delay to allow the authors of papers to make corrections when the matter is in type.

### TO CLERKS OF COUNTY ASSOCIATIONS.

The Committee would also call attention to the fact that the Secretary is *required* to prepare and circulate a **PROGRAMME** of the literary exercises before the meeting of the Convention. To allow the proper preparation of such a programme, all papers intended for publication should be sent to the Publishing Committee *before* the Tenth day of May. Reports of County Clerks should also be sent promptly to the Secretary, **BEFORE THE FIRST OF MAY**, as the By-Laws of the Society require.

**THE REPORTS OF COUNTY CLERKS** should include,

1st. The names of Officers and Fellows of the County Associations.

2nd. Names and residences of members, with special notices of new members elected during the year.

3rd. Name of County Student elected.

4th. Titles, and names of authors, of all papers recommended for publication.

5th. Names of all members who have died during the year, with date of birth and death, date of Diploma or License, with any other facts necessary for publication in the Annual Mortuary Tablet.

The Proceedings are sent by mail to all members of the Society not in arrears for taxes; to all Honorary Members and to Delegates from other societies; to the Secretaries of other State Societies; to Editors of Medical Journals who desire them. Persons entitled to the Proceedings, who fail to receive them, are requested to send their names and Post Office address to the Secretary.

Matters connected with the new Charter approved by the Legislature, new By-Laws, and the preparation of the Mortuary Tablet, have delayed the Proceedings beyond the ordinary time of Publication.

M. C. WHITE,

*Secretary of the Conn. Med. Society.*

113 George Street, New Haven, Conn.

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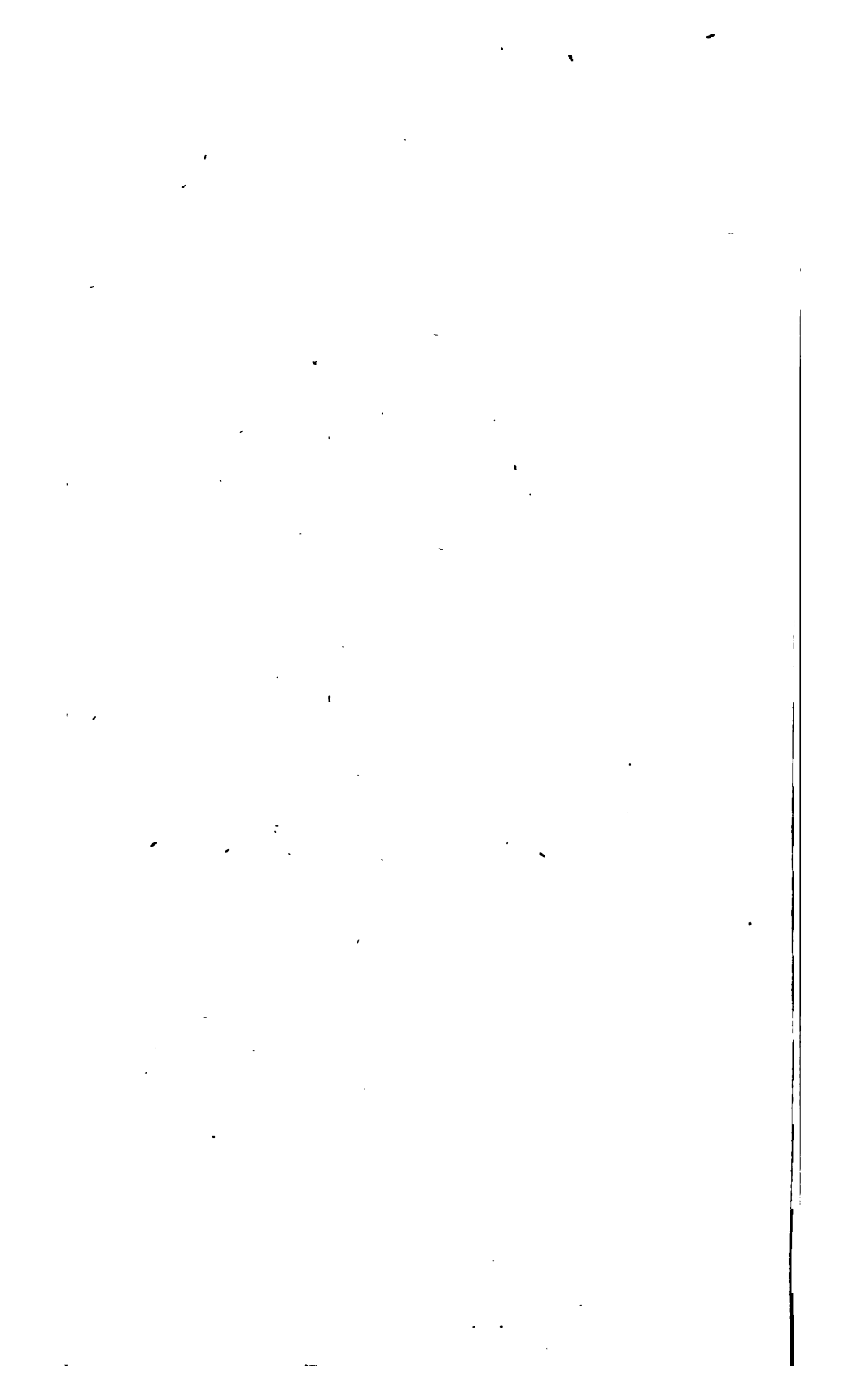
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# PROCEEDINGS.

THE *Eightieth*† Annual Meeting of the President and Fellows of the Connecticut Medical Society was held at Stedman's Hall, in the city of Hartford, May 24, 1871.

The meeting was called to order by the Vice-President, Gurdon W. Russell, M.D., who appointed A. W. Barrows, M.D., and Lowel Holbrook, M.D., a Committee on Credentials.

The Committee reported the list of Fellows elected. The Report was approved, and the list was read by the Secretary, as follows, viz:—

## HARTFORD COUNTY.

|                     |                      |
|---------------------|----------------------|
| A. W. Barrows, M.D. | H. C. Bunce, M.D.    |
| G. W. Sanford, M.D. | Geo. C. Jarvis, M.D. |
| Wm. Scott, M.D.     |                      |

## NEW HAVEN COUNTY.

|                        |                      |
|------------------------|----------------------|
| David A. Tyler, M.D.   | B. F. Harrison, M.D. |
| Wm. B. DeForest, M.D.  | R. F. Stillman, M.D. |
| H. A. Carrington, M.D. |                      |

## NEW LONDON COUNTY.

|                      |                    |
|----------------------|--------------------|
| *L. S. Paddock, M.D. | F. Morgan, M.D.    |
| A. Woodward, M.D.    | *Levi Warren, M.D. |
| I. G. Porter, M.D.   |                    |

## FAIRFIELD COUNTY.

|                       |                      |
|-----------------------|----------------------|
| *Samuel Sands, M.D.   | *M. B. Pardee, M.D.  |
| Jas. G. Gregory, M.D. | *R. L. Higgins, M.D. |
| *W. A. Lockwood, M.D. |                      |

## LITCHFIELD COUNTY.

|                      |                       |
|----------------------|-----------------------|
| *J. W. Bidwell, M.D. | *T. S. Hanchett, M.D. |
| Orlando Brown, M.D.  | *W. J. Beach, M.D.    |
| C. W. Bull, M.D.     |                       |

\* Absent.

† Corrected numbering. The First Annual Meeting was held in 1792.

## MIDDLESEX COUNTY.

M. C. Hazen, M.D.  
F. D. Edgerton, M.D.

R. W. Mathewson, M.D.

## TOLLAND COUNTY.

J. A. Warren, M.D.  
S. G. Risley, M.D.

Wm. N. Clark, M.D.

## WINDHAM COUNTY.

J. Hammond, M.D.  
L. Williams, M.D.  
L. Holbrook, M.D.

J. B. Whitcomb, M.D.  
T. M. Hills, M.D.

The President, Charles F. Sumner, M.D., arrived, and took the chair.

The President appointed as Business Committee, Drs. M. C. White, G. W. Russell and Wm. N. Clark.

The Nominating Committee appointed by the County Delegates was announced as follows:

|                                           |   |
|-------------------------------------------|---|
| Geo. W. Sanford, M.D., Hartford County.   |   |
| David A. Tyler, M.D., New Haven           | " |
| Ashbel Woodward, M.D., New London County. |   |
| Jas. G. Gregory, M.D., Fairfield          | " |
| Joshua Hammond, M.D., Windham             | " |
| Orlando Brown, M.D., Litchfield           | " |
| F. D. Edgerton, M.D., Middlesex           | " |
| Stephen G. Risley, M.D., Tolland          | " |

Dr. C. A. Lindsley offered amendments to supply defects in the By-laws, which, after some discussion, were withdrawn by the mover.

Hiram Corliss, M.D., Delegate from the Medical Society of New York, and F. H. Peckham, M.D., Delegate from Rhode Island Medical Society, presented their credentials, and were introduced to the meeting.

The President appointed as a Committee on County Resolves and Communications from Members, Wm. B. DeForest, M.D., Wm. Scott, M.D., and Lewis Williams, M.D.

A resolution of the American Medical Association, in regard to Preliminary Education of Medical Students, and a By-Law of the Connecticut Medical Society on the same subject, passed in 1847, were referred to the Committee last named.

A resolution presented by Dr. DeForest, in regard to revision of the By-laws, received the same reference.

The President appointed as Committee on Gratuitous Students, A. W. Barrows, M.D., J. B. Whitcomb, M.D., and James G. Gregory, M.D.

On motion of Dr. Harrison, it was

*Voted*, That in explanation of the By-Laws, it is understood that the President elected last year should preside this year, and the President to be elected this year should serve for next year.

Dr. R. W. Mathewson offered a resolution—

That the Treasurer be directed to furnish a copy of Braithwaite's Retrospect, or some other Journal of equal value, to all members who pay the tax for this year before the first of January next.

The resolution was referred to the Committee on County Resolves.

The President appointed M. C. White, M.D., and G. W. Russell, M.D., a Committee to nominate Essayists for the ensuing year (to report to the Convention to-morrow).

The Treasurer presented his Annual Report. H. C. Bunce, M. D., and T. M. Hills, M.D., were appointed to audit the Treasurer's Report.

They reported that the Treasurer's Accounts were found correct.

The Treasurer's Report was then approved and ordered *on file*.

#### *General Summary.*

|                                                                                  |                  |
|----------------------------------------------------------------------------------|------------------|
| May 24, 1870. Balance in Treasury, .....                                         | \$138.87½        |
| May 23, 1871. Received during the year, .....                                    | 498.25           |
|                                                                                  | <u>\$637.12½</u> |
| May 23, 1871. Disbursements during the year, .....                               | 338.33           |
|                                                                                  | <u>\$298.79½</u> |
| Balance carried to new account, .....                                            | \$298.79½        |
| Due from Clerks and ex-Clerks, .....                                             | \$1,563.61       |
| Deduct three-fourths of this for abatements, commissions, bad debts, etc., ..... | 1,172.70         |
|                                                                                  | <u>390.91</u>    |
|                                                                                  | <u>\$688.70½</u> |
| The Society owes for Debentures, outstanding, .....                              | 169.25           |
|                                                                                  | <u>\$519.45½</u> |
| Leaving a Balance in favor of the Society, .....                                 | 384.23           |
| Balance last year, .....                                                         | <u>135.22½</u>   |
| Increase of balance over last year, .....                                        | \$135.22½        |

NOTE.—The Engraving, Electrotyping and Printing the Memorial Tablets in the Proceedings for 1870 were paid by private subscriptions, amounting to \$61.00.

COMMITTEE OF PUBLICATION.

The Committee on Communications from Members, County Associations and other Societies reported as follows, viz.:

Your Committee, to whom was referred a communication from the American Medical Association\* in relation to the proper educational qualifications of students of medicine; and also a portion of the By-laws contained in Chap. IX, which requires that every student of medicine shall be examined by his preceptor and one of the Fellows of this Society upon the subject of English education, and Greek and Latin languages, before he can be admitted as a student in a physician's office, &c., beg leave to report, that they have considered the matters herein presented, and are unanimously of the opinion that the object sought in both these communications is highly commendable, viz: THE ELEVATION OF THE STANDARD OF MEDICAL EDUCATION; and they recommend that in all cases when practicable the By-law be complied with, but they think a wise discretion should govern in its application.

Upon the resolution referred to your Committee in relation to the revision of the By-laws, they recommend that it be referred for final action to the next regular meeting of this Society, with a full concurrence on the part of your Committee in its object.

Your Committee further report, that they have carefully considered the resolution in relation to supplying a copy of Braithwaite's Retrospect to every member of this Society; that while they believe it to be for the interest of every member of the profession to be supplied with some medical periodical, that it hardly comports with the objects of this Society to enter into the practical business of supplying its members with medical or other books. They therefore recommend that the resolution be indefinitely postponed.

All of which is respectfully submitted.

WM. B. DEFOREST,  
WM. SCOTT,  
LEWIS WILLIAMS.

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\* Resolution adopted by the American Medical Association at San Francisco, 1871.

"Resolved, That each State and local Society be requested to provide, as a permanent part of its organization, a Board of Censors for determining the educational qualifications of such young men as propose to commence the study of medicine: and that no member of such Societies be permitted to receive a student into his office until such student presents a certificate of proper preliminary education from the committee appointed for that purpose, or a degree from some literary college of known good standing."

In 1847 the Connecticut Medical Society passed a by-law (see By-laws, Chapter IX, page 11), requiring every medical student to be examined by the preceptor and one of the Fellows of this Society before being entered as a student in the office of any member of this Society.



This report was adopted, and it was *voted*, that a committee of three be appointed to *harmonize* the *By-laws*. The Committee are Drs. C. A. Lindsley, H. M. Knight and G. H. Preston.

An invitation was received from Dr. Butler for the President and Fellows to visit the Retreat for the Insane. On motion, it was *voted*, that an evening session be held at the Retreat for the Insane at 8 o'clock this evening.

The Committee on Gratuitous Students reported the names of three students selected by counties to attend a gratuitous course of lectures in the Medical Institution of Yale College. The Committee recommended that the names of two students be added to fill vacancies. The report was adopted.

The list of Gratuitous Students approved by the Convention is as follows, viz. :

Laban H. Johnson, of New Haven.  
 Elias B. Heady, of Norfolk.  
 Stephen Orrimel Hendrick, of Woodstock.  
 Terence Mahony O'Herron, of Bridgeport.  
 Frederick Bellosa, of New Haven.

Drs. B. F. Harrison and Orlando Brown were appointed tellers, and officers were elected as follows, viz. :

*President*—G. W. RUSSELL, M.D., of Hartford.  
*Vice-President*—H. W. BUEL, M.D., of Litchfield.  
*Treasurer*—J. C. JACKSON, M.D., of Hartford.  
*Secretary*—M. C. WHITE, M.D., of New Haven.

*Voted*, That the *Annual Tax* be *two dollars*, payable June 1st, 1871.

*Voted*, That 550 copies of the Proceedings be published.

On recommendation of the Nominating Committee, the following gentlemen were elected to fill vacancies in the Standing Committees, viz:—

*On Committee of Examination*—T. S. Hanchett, M.D., and D. A. Tyler, M.D.

*On Committee to Nominate Professors in the Medical Institution of Yale College*—E. B. Nye, M.D., and S. Lynes, M.D.

*On Committee to Nominate Physician to the Retreat for the Insane*—C. M. Carlton, M.D., and J. B. Whitcomb, M.D.

*On Committee of Publication*—G. W. Russell, M.D., and L. J. Sanford, M.D.

*Committee of Arrangements*—H. A. Carrington, M.D., D. L. Daggett, M.D., and C. A. Lindsley, M.D.

*Dissertator*—H. M. Knight, M.D.

*Alternate*—L. J. Sanford, M.D.

*On Committee on Matters of Professional Interest in the State*—H. W. Buel, M.D., and F. D. Edgerton, M.D.

Delegates to other Societies were elected as follows, viz:—

To the American Medical Association—B. B. North, M.D., A. Woodward, M.D., D. L. Daggett, M.D., Lewis Williams, M.D., S. G. Risley, M.D.

To the Maine Medical Association—L. Holbrook, M.D., W. Porter, M.D.

To the New Hampshire Medical Society—A. W. Barrows, M.D., and G. H. Preston, M.D.

To the Vermont Medical Society—J. A. Warren, M.D., and Myron Downs, M.D.

To the Massachusetts Medical Society—E. W. Blake, M.D., and Orlando Browne, M.D.

To the Rhode Island Medical Society—Edwin A. Hill, M.D., and J. Hammond, M.D.

To the New York Medical Society—M. B. Pardee, M.D., H. G. Gates, M.D., Francis Bacon, M.D., G. W. Sanford, M.D., and Wm. Woodruff, M.D.

To the New Jersey Medical Society—J. B. Derickson, M.D., and C. A. Lindsley, M.D.

The Report of the Committee on Registration of Regular Practitioners of Medicine in the State was read and accepted, and ordered to be printed. (See Appendix B.)

The Secretary was directed to send a copy of said Report to the appropriate Committee of the American Medical Association.

Adjourned, to meet at the Retreat for the Insane at 8 P. M.

#### *Evening Session.*

At 8 P. M. the President and Fellows assembled at the Insane Retreat, and were called to order by the President, C. F. Sumner, M.D.

The following preamble and resolution were unanimously adopted:

WHEREAS, it is understood that Henry Bronson, M.D., has prepared a paper on *Intermittent Fever*, which would have been presented to the Annual Meeting this year had not ill health prevented;

*Resolved*, That Dr. Bronson be requested to furnish a copy of his paper on Intermittent Fever for publication in the Proceedings this year.\*

On motion of the Secretary, it was

*Voted*, That in case it shall be ascertained that any routine business has been overlooked, the President be authorized to call the Fellows together at 12 *m.* to-morrow, during a temporary recess of the Annual Convention of the Society, to attend to said business.

The President and Fellows, with Delegates from other Societies, were then escorted by Dr. Butler, the Superintendent, through several wards of the Retreat, and the recent improvements and most excellent arrangements of the Institution were carefully explained, to the great satisfaction of all.

After partaking of a bountiful collation, provided by Dr. Butler, the meeting adjourned.

At 12 *m.*, May 25, the Fellows were called to order by the President.

The Secretary stated that the nomination of Dr. Bowen of Bridgeport as an honorary member had not been acted upon. It was voted to let the case lie over until next year.

The Annual Meeting of the Fellows then adjourned to May, 1872.

Attest :

M. C. WHITE, M.D., *Secretary.*

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\* Dr. Bronson's paper is not ready for publication this year.

## THE ANNUAL CONVENTION

Of the Connecticut Medical Society was held at Stedman's Hall, Thursday, May 25, 1871.

The Convention was called to order at 9 A. M., by the President, C. F. Sumner, M.D.

The list of officers was read, and the Vice-Presidents took seats upon the stage.

|                                     |   |                                         |
|-------------------------------------|---|-----------------------------------------|
| G. W. RUSSELL, M.D., Vice-President | } | Vice-Presidents,<br><i>ex-officio</i> . |
| and President-elect.                |   |                                         |
| H. W. BUEL, M.D., Vice-President.   |   |                                         |
| Wm. Scott, M.D.                     | } |                                         |
| David L. Daggett, M.D.              |   |                                         |
| Isaac G. Porter, M.D.               |   |                                         |
| Ira Gregory, M.D.                   |   |                                         |
| A. R. Goodrich, M.D.                |   |                                         |
| Ira Hutchinson, M.D.                |   |                                         |

Credentials of Delegates from other Societies were read, and the Delegates were introduced to the Convention, viz :

Hiram Corliss, M.D., New York State Medical Society.

Robert Newman, M.D., New York State Medical Society.

Thomas W. Perry, M.D., Rhode Island Medical Society.

Fenner H. Peckham, M.D., Rhode Island Medical Society.

The Secretary read the list of members who have united with the Society during the year. Their names are printed in the regular lists. The Secretary read also the names of members who had died during the past year. [See Memorial Tablets.]

The Business Committee announced the arrangements for the Literary Exercises.

G. W. Russell, M.D., Vice-President and President-elect, then took the chair, when the Annual Address was delivered by the President, Chas. F. Sumner, M.D.

On motion of Dr. Carrington, it was

*Voted*, That a copy of the Address be requested for publication.

The Annual Dissertation was delivered by Prof. F. Bacon, M.D., on the Duties of the Medical Profession to the State.

The thanks of the Society were tendered to Dr. Bacon, and a copy of the Dissertation was requested for publication.

Remarks and observations called forth by the Dissertation were made by Dr. Corliss of New York.

Prof. S. G. Hubbard, M.D., followed with remarks on Public Hygiene, and the duty of the State to encourage Medical Education.

The Faculty of the Medical Institution of Yale College presented to the Convention the plan of a Bill for a Public Act to promote Medical Science, and asked the aid of the Convention in securing its adoption by the Legislature. Whereupon it was unanimously

*Resolved*—1, That we fully appreciate the great importance to the cause of Medical Science, and the best interests of the Medical Department of Yale College, of the Bill for a Public Act, entitled an "Act to promote Medical Science" submitted herewith to the General Assembly, and this Society cordially unites with the Faculty of the Medical Institution of Yale College in requesting its passage by the General Assembly.

*Resolved*—2, That the Secretary of this Society be and he is hereby instructed to present a certified copy of the foregoing to the General Assembly.

The Committee to nominate essayists recommended the following appointments, which were adopted by the Convention, viz:

J. S. Butler, M.D., on *Prevention of Insanity*.

C. W. Bull, M.D., on *Bright's Disease*.

Wm. B. DeForest, M.D., on *Public Hygiene*.

J. C. Jackson, M. D., on *Life Insurance*.

S. W. Rockwell, M.D., on *Treatment of Typhoid Fever*.

Geo. A. Ward, M.D., on *Wounds of the Heart*.

H. A. Carrington, M.D., then read the Report of the Committee on matters of Professional Interest in the State. The Report was referred to the Committee of Publication.

Dr. M. C. White then read a paper on Chloral Hydrate, a copy of which was requested for publication.

The Society then adjourned.

Attest:

M. C. WHITE, M.D., *Secretary*.

The Members of the Society and invited guests then repaired to the United States Hotel, and partook of the annual dinner prepared by the Committee of Arrangements.

# OFFICERS OF THE SOCIETY

## FOR 1871--72.

---

PRESIDENT,  
GURDON W. RUSSELL, M.D., OF HARTFORD.

VICE-PRESIDENT,  
HENRY W. BUEL, M.D., OF LITCHFIELD.

VICE-PRESIDENTS, *Ex-officio*,  
WM. SCOTT, M.D., OF MANCHESTER.  
DAVID L. DAGGETT, M.D., OF NEW HAVEN.  
IRA GREGORY, M.D., OF NORWALK.  
ISAAC G. PORTER, M.D., OF NEW LONDON.  
IRA HUTCHINSON, M.D., OF CROMWELL.  
A. R. GOODRICH, M.D., OF VERNON DEPOT.  
LOWEL HOLBROOK, M.D., OF THOMPSON.

TREASURER,  
JAMES C. JACKSON, M.D., OF HARTFORD.

SECRETARY,  
MOSES C. WHITE, M.D., OF NEW HAVEN.

### STANDING COMMITTEES.

#### *Committee of Examination.*

GURDON W. RUSSELL, M.D., *Ex-officio*.  
ASHBEL WOODWARD, M.D.  
LUCIAN S. WILCOX, M.D.  
RUFUS BAKER, M.D.  
LOWEL HOLBROOK, M.D.  
F. L. DICKINSON, M.D.  
T. S. HANCHETT, M.D.  
DAVID A. TYLER, M.D.

*Committee to Nominate Professors in the Medical Institution of  
Yale College.*

STEPHEN G. RISLEY, M.D.  
DAVID L. DAGGETT, M.D.  
H. W. BUEL, M.D.  
ELISH B. NYE, M.D.  
SAMUEL LYNES, M.D.

*Committee to Nominate Physician to the Retreat for the Insane.*

H. M. KNIGHT, M.D.  
P. M. HASTINGS, M.D.  
G. L. PLATT, M.D.  
C. M. CARLETON, M.D.  
J. B. WHITCOMB, M.D.

*Committee on Matters of Professional Interest in the State.*

H. A. CARRINGTON, M.D.  
H. W. BUEL, M.D.  
F. D. EDGERTON, M.D.

*Committee of Publication.*

MOSES C. WHITE, M.D., *Ex-officio*.  
GURDON W. RUSSELL, M.D.  
LEONARD J. SANFORD, M.D.

*Committee of Arrangements.*

H. A. CARRINGTON, M.D.  
D. L. DAGGETT, M.D.  
C. A. LINDSLEY, M.D.

*Committee to Harmonize the By-Laws.*

CHAS. A. LINDSLEY, M.D.  
H. M. KNIGHT, M.D.  
G. H. PRESTON, M.D.

*Reporters on Medical Science.*

G. S. BUTLER, M.D., on *Prevention of Insanity*.

C. W. BULL, on *Bright's Disease*.

WM. B. DEFOREST, M.D., on *Public Hygiene*.

J. C. JACKSON, M.D., on *Life Insurance*.

S. W. ROCKWELL, M.D., on *Treatment of Typhoid Fever*.

GEO. A. WARD, M.D., on *Wounds of the Heart*.

*Dissertator*—H. M. KNIGHT, M.D.

*Alternate*—L. J. SANFORD, M.D.



# MEMBERS OF THE SOCIETY.

## HONORARY MEMBERS.

|                         |           |                       |
|-------------------------|-----------|-----------------------|
| *FELIX PASCALIS,        | - - - - - | New York City.        |
| JAMES JACKSON,          | - - - - - | Boston, Mass.         |
| *JOHN C. WARREN,        | - - - - - | Boston, Mass.         |
| *SAMUEL L. MITCHELL,    | - - - - - | New York City.        |
| *DAVID HOSACK,          | - - - - - | New York City.        |
| *WRIGHT POST,           | - - - - - | New York City.        |
| *BENJAMIN SILLIMAN,     | - - - - - | New Haven.            |
| *GEORGE M'CLELLAN,      | - - - - - | Philadelphia, Pa.     |
| *JOHN MACKIE,           | - - - - - | Providence, R. I.     |
| *CHARLES ELDREDGE,      | - - - - - | East Greenwich, R. I. |
| *THEODORIC ROMEYN BECK, | - - - - - | Albany, N. Y.         |
| *JAMES THACHER,         | - - - - - | Plymouth, Mass.       |
| EDWARD DELAFIELD,       | - - - - - | New York City.        |
| JOHN DELAMATER,         | - - - - - | Cleveland, O.         |
| *WILLIAM P. DEWEES,     | - - - - - | Philadelphia, Pa.     |
| *JOSEPH WHITE,          | - - - - - | Cherry Valley, N. Y.  |
| JACOB BIGELOW,          | - - - - - | Boston, Mass.         |
| WALTER CHANNING,        | - - - - - | Boston, Mass.         |
| *PHILIP SYNG PHYSIC,    | - - - - - | Philadelphia, Pa.     |
| *LEWIS HERMAN,          | - - - - - | U. S. Navy.           |
| *DANIEL DRAKE,          | - - - - - | Cincinnati, O.        |
| *HENRY MITCHELL,        | - - - - - | Norwich, N. Y.        |
| NATHAN RYNO SMITH,      | - - - - - | Baltimore, Md.        |
| *VALENTINE MOTT,        | - - - - - | New York City.        |
| *SAMUEL WHITE,          | - - - - - | Hudson, N. Y.         |
| *REUBEN D. MUSSEY,      | - - - - - | Cincinnati, O.        |
| *WILLIAM TULLY,         | - - - - - | Springfield, Mass.    |
| RICHMOND BROWNELL,      | - - - - - | Providence, R. I.     |
| *WILLIAM BEAUMONT,      | - - - - - | St. Louis, Mo.        |
| SAMUEL HENRY DICKSON,   | - - - - - | Philadelphia, Pa.     |
| *SAMUEL B. WOODWARD,    | - - - - - | Northampton, Mass.    |
| *JOHN STEARNS,          | - - - - - | New York City.        |
| *STEPHEN W. WILLIAMS,   | - - - - - | Deerfield, Mass.      |
| *HENRY GREEN,           | - - - - - | Albany, N. Y.         |
| *GEORGE FROST,          | - - - - - | Springfield, Mass.    |
| WILLARD PARKER,         | - - - - - | New York City.        |
| *BENAJAH TICKNOR,       | - - - - - | U. S. Navy.           |
| *ALDEN MARCH,           | - - - - - | Albany, N. Y.         |
| *AMOS TWITCHELL,        | - - - - - | Keene, N. H.          |

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\* Deceased.

|                                  |                    |
|----------------------------------|--------------------|
| CHARLES A. LEE, - - - - -        | New York City.     |
| *DAVID S. C. H. SMITH, - - - - - | Providence, R. I.  |
| *JAMES M. SMITH, - - - - -       | Springfield, Mass. |
| HENRY D. BULKLEY, - - - - -      | New York City.     |
| J. MARION SYMS, - - - - -        | New York City.     |
| *JOHN WATSON, - - - - -          | New York City.     |
| FRANK H. HAMILTON, - - - - -     | Brooklyn, L. I.    |
| *ROBERT WATTS, - - - - -         | New York City.     |
| J. V. C. SMITH, - - - - -        | New York City.     |
| O. WENDELL HOLMES, - - - - -     | Boston, Mass.      |
| JOSEPH SARGENT, - - - - -        | Worcester, Mass.   |
| *MASON F. COGSWELL, - - - - -    | Albany, N. Y.      |
| FOSTER HOOPER, - - - - -         | Fall River, Mass.  |
| *THOMAS C. BRINSMADE, - - - - -  | Troy, N. Y.        |
| GEORGE CHANDLER, - - - - -       | Worcester, Mass.   |
| GILMAN KIMBALL, - - - - -        | Lowell, Mass.      |
| JAMES McNAUGHTON, - - - - -      | Albany, N. Y.      |
| *USHER PARSONS, - - - - -        | Providence, R. I.  |
| *S. D. WILLARD, - - - - -        | Albany, N. Y.      |
| *JOHN WARE, - - - - -            | Boston, Mass.      |
| EBENEZER ALDEN, - - - - -        | Randolph, Mass.    |
| B. FORDYCE BARKER, - - - - -     | New York City.     |
| JOHN G. ADAMS, - - - - -         | New York City.     |
| JARED LINSLEY, - - - - -         | New York City.     |
| A. J. FULLER, - - - - -          | Bath, Me.          |
| SAMUEL H. PENNINGTON, - - - - -  | Newark, N. J.      |
| FREDERICK N. BENNETT, - - - - -  | Orange, N. J.      |
| *THOMAS W. BLATCHFORD, - - - - - | Troy, N. Y.        |
| THOMAS C. FINNELL, - - - - -     | New York City.     |
| N. C. HUSTED, - - - - -          | New York City.     |
| JACOB P. WHITTEMORE, - - - - -   | Chester, N. H.     |
| JOHN GREEN, - - - - -            | Worcester, Mass.   |
| THOMAS SANBORN, - - - - -        | Newport, N. H.     |
| WILLIAM PIERSON, - - - - -       | Orange, N. J.      |
| ARTHUR WARD, - - - - -           | Belleville, N. J.  |
| HIRAM CORLISS, - - - - -         | Washington, N. Y.  |
| E. K. WEBSTER, - - - - -         | Boscawen, N. H.    |
| P. A. STACKPOLE, - - - - -       | Dover, N. H.       |
| S. F. L. SIMPSON, - - - - -      | Concord, N. H.     |
| A. T. WOODWARD, - - - - -        | Vt.                |
| WM. McCULLOM, - - - - -          | Vt.                |
| J. C. HUTCHINSON, - - - - -      | Brooklyn, N. Y.    |
| BENJ. E. COTTING, - - - - -      | Boston, Mass.      |
| HENRY L. BOWDITCH, - - - - -     | Boston, Mass.      |
| SETH SHOVE, - - - - -            | Katanah, N. Y.     |
| SAMUEL T. HUBBARD, - - - - -     | New York City.     |

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\* Deceased.

## ORDINARY MEMBERS.

—♦♦—  
♦  
*The names of those who have been Presidents are in Capitals.*  
—♦♦—

### HARTFORD COUNTY.

WM. SCOTT, M.D., of Manchester, President.

H. S. FULLER, M.D., of Hartford, Clerk.

|                                           |                                         |
|-------------------------------------------|-----------------------------------------|
| HARTFORD, S. B. BERESFORD, G. B.          | Warehouse Point, Marcus L. Fiek.        |
| Hawley, G. W. RUSSELL, David              | ENFIELD, Thompsonville, Edward F. Par-  |
| Crary, P. W. Ellsworth, E. K. HUNT,       | sons. Rial L. Strickland, Henry E.      |
| J. S. Butler,* J. C. Jackson, A. W.       | Childs.                                 |
| Barrows, Thomas Miner,* William R.        | FARMINGTON, Frank Wheeler, Charles      |
| Brownell, P. M. Hastings, Edward          | Carrington.                             |
| Brinley, W. H. Tremaine, Lucian S.        | PLAINVILLE, G. A. Moody.                |
| Wilcox, Henry P. Stearns, S. C. Pres-     | GRANBY, (North,) Francis F. Allen,* G.  |
| ton, Irving W. Lyon, Daniel Poll, Me-     | W. Edwards.                             |
| lancthon Storrs, Horace S. Fuller, John   | GLASTENBURY, H. C. Bunce.               |
| O'Flaherty, Nathan Mayer, Wm. M.          | South Glastenbury, G. A. Hubbard, H.    |
| Hudson, Geo. C. Jarvis, C. R. Hart,       | M. Rising.                              |
| Morton W. Easton, W. A. M. Wain-          | MANCHESTER, William Scott.*             |
| wright, E. M. Dunbar, David Crary,        | NEW BRITAIN, B. N. Comings, S. W. Hart, |
| Jr., George F. Hawley, J. B. Lewis,       | Geo. Clary, E. B. Lyon, J. S. Stone.    |
| D. T. Bromley, Geo. P. Davis, C. A.       | ROCKY HILL, R. W. Griswold.             |
| Palma de Vigo de Cortez.                  | SIMSBURY, Tariffville, G. W. Sanford.*  |
| BERLIN, E. Brandegee.                     | Weatogue, R. A. White.                  |
| BLOOMFIELD, Henry Gray.                   | SOUTHINGTON, N. H. Byington,* F. A.     |
| BROADBROOK, E. R. Leonard.                | Hart.                                   |
| CANTON, Collinsville, R. H. Tiffany, Geo. | SUFFIELD, Aretus Rising,* J. K. Mason.  |
| R. Shepherd.                              | WEST HARTFORD, Edward Brace.*           |
| EAST GRANBY, Chester Hamlin.*             | WETHERSFIELD, E. F. Cook,* A. S. War-   |
| EAST HARTFORD, S. L. Childs, Edward R.    | ner.                                    |
| Brownell, L. W. McIntosh.                 | WINDSOR, A. Morrison, S. A. Wilson.     |
| EAST WINDSOR HILL, Sidney W. Rock-        |                                         |
| well, William Wood.                       |                                         |

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\* Over sixty years of age.

## NEW HAVEN COUNTY.

DAVID L. DAGGETT, M.D., of New Haven, President.

EDWARD BULKLEY, M.D., of New Haven, Clerk.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NEW HAVEN, E. H. Bishop,* Levi Ives,<br>David L. Daggett, George O. Sumner,*<br>David A. Tyler, HENRY BRONSON,*<br>E. A. Park, S. G. Hubbard, H. W. E.<br>Matthews, C. A. Lindsley, T. H. Totton,<br>John Nicoll, Moses C. White, H. Pier-<br>point, J. H. Beecher, Leonard*J. San-<br>ford, Chas. L. Ives, Edward Bulkley,<br>W. B. DeForest,* F. L. Dibble, T. Beers<br>Townsend, Evelyn L. Bissell, T. H.<br>Bishop, Eli W. Blake, Henry A. Du-<br>Bois, Francis Bacon, C. O. Stockman,<br>Charles A. Gallagher, W. Lockwood<br>Bradley, A. E. Winchell, H. A. Car-<br>rington, George F. Barker, O. W. Peck,<br>L. M. Gilbert, Robert S. Ives, F. J.<br>Whittemore, Arthur Ruckoldt, H. L.<br>Wixon, C. J. DuBois, Stephen H. Bron-<br>son, Willis G. Alling, Frank Gallagher,<br>Walter R. Bartlett. | Ansonia, C. W. Sheffrey.<br>GUILFORD, Joel Canfield,* Alvan Takou<br>G. P. Reynolds.<br>North Guilford, Justin Smith.<br>HAMDEN, Edwin D. Swift, O. F. Treas-<br>well.<br>MADISON, D. M. Webb.<br>MERIDEN, (West), B. H. CATLIN, Asa<br>H. Churchill, James G. Bacon, Jas. J.<br>Averill, Frederick J. Fitch, C. H. E.<br>Davis, Charles H. Gaylord.<br>MILFORD, Hull Allen,* L. N. Beardsley,<br>Thomas Dutton.<br>NAUGATUCK, J. D. Mearns.*<br>NORTH BRANFORD, Sheldon Beardsley.*<br>NORTH HAVEN, R. F. Stillman.<br>ORANGE, West Haven, J. Martin Ames.<br>OXFORD, Lewis Barnes.<br>SEYMOUR, Thos. Stoddard, S. C. Johnson,<br>Joshua Kendall.<br>SOUTHBURY, A. B. Burritt.*<br>South Britain, N. C. Baldwin.<br>WALLINGFORD, Nehemiah Banks, R. F.<br>Harrison.<br>WATERBURY, G. L. Platt, John Deane,<br>George E. Perkins, Thos. Dougherty,<br>Alfred North, Edward L. Griggs.<br>Woodbridge, David M. Ellwood. |
| Fair Haven, Charles S. Thomson,* W. H.<br>Thomson, Wm. H. White.<br>Westville, J. W. Barker.<br>BRANFORD, H. V. C. Holcomb, Newton<br>B. Hall.<br>CHESHIRE, A. J. Driggs, M. N. Chamber-<br>lin.<br>DEEBY, Charles H. Pinney.<br>Birmingham, Ambrose Beardsley.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## NEW LONDON COUNTY.

ISAAC G. PORTER, M.D., of New London, President.

ALBERT T. CHAPMAN, M.D., of Mystic, Clerk.

|                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NEW LONDON, ISAAC G. PORTER,* D.<br>P. Francis, Robert A. Manwaring, A.<br>W. Nelson, F. N. Braman, Henry Pot-<br>ter.<br>BOZRAH, Samuel Johnson.*<br>COLCHESTER, Ezekiel W. Parsons,* Fred-<br>erick Morgan.*<br>FRANKLIN, ASHBEL WOODWARD.<br>Greenville, Wm. Witter.<br>GROTON, Mystic River, A. W. Coates,<br>John Gray.<br>LEBANON, Ralph Green.* | MYSTIC, Mason Manning,* Albert T.<br>Chapman.<br>NORWICH, Elijah Dyer,* Elisha Phinney,*<br>A. B. Haile, Lewis S. Paddock, Chas.<br>M. Carleton, F. S. Abbott, Wm. S. C.<br>Perkins, Patrick Cassidy, Thomas*<br>Graves, Levi Warren.<br>OLD LYME, Richard Noyes,* Geo. W.<br>Harris.<br>STONINGTON, William Hyde.*<br>Mystic Bridge, E. Frank Coates. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

\* Over sixty years of age.

## FAIRFIELD COUNTY.

IRA GREGORY, M.D., of Norwalk, President.

GEORGE L. BEERS, M.D., of Bridgeport, Clerk.

|                                                                                                                                                                                                                                                             |                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Southport, Justus Sherwood,* Edward H. Winslow.                                                                                                                                                                                                             | NORWALK, Ira Gregory,* Samuel Lynes, James G. Gregory, James E. Barbour, W. A. Lockwood, John W. McLean. |
| BRIDGEPORT, William B. Nash,* David H. Nash, Robert Hubbard, H. L. W. Burritt, Elijah Gregory, Geo. L. Beers, Andrew J. Smith, Augustus H. Abernethy, George F. Lewis, James R. Cumming, Gustave Ohnesorg, George L. Porter, James D. Brown, Robert Lauder. | South Norwalk, M. B. Pardee, R. L. Higgins, John Hill.                                                   |
| BROOKFIELD, A. L. Williams.                                                                                                                                                                                                                                 | RIDGEFIELD, O. S. Hickok, Wm. S. Todd.                                                                   |
| DANBURY, E. P. Bennett,* James Baldwin,* William C. Bennett.                                                                                                                                                                                                | STAMFORD, N. D. Haight,* Jas. H. Hoyt.                                                                   |
| DARIEN, Samuel Sands.                                                                                                                                                                                                                                       | North Stamford, Geo. W. Birch, W. H. Trowbridge.                                                         |
| EASTON, B. W. Munson.                                                                                                                                                                                                                                       | STRATFORD, Roger M. Gray.                                                                                |
| NEW CANAAN, Samuel S. Noyes,* Lewis Richards,* William G. Brownson.                                                                                                                                                                                         | TRUMBULL, George Dyer.*                                                                                  |
|                                                                                                                                                                                                                                                             | WESTPORT, George Blackman,* George B. Bouton.                                                            |
|                                                                                                                                                                                                                                                             | WILTON, A. E. Emery.                                                                                     |
|                                                                                                                                                                                                                                                             | HUNTINGTON, Gould A. Shelton.                                                                            |

## WINDHAM COUNTY.

LOWEL HOLBROOK, M.D., of Thompson, President.

SAMUEL HUTCHINS, M.D., of West Killingly, Clerk.

|                                                         |                                                                    |
|---------------------------------------------------------|--------------------------------------------------------------------|
| WINDHAM, E. Huntington, Horace E. Balcan.               | PLAINFIELD, Moosup, Wm. A. Lewis, Charles H. Rogers.               |
| ASHFORD, John H. Simmons.                               | THOMPSON, Lowell Holbrook, Charles Hosford.                        |
| BROOKLYN, James B. Whitcomb,* Wm. Woodbridge.           | VOLUNTOWN, Harvey Campbell.*                                       |
| CHAPLIN, Orrin Witter.                                  | WESTFORD, Farnam O. Bennett.                                       |
| HAMPTON, Dyer Hughes.*                                  | WOODSTOCK, Lorenzo Marcy.*                                         |
| KILLINGLY, Justin Hammond.*                             | East Woodstock, John Witter.                                       |
| South Killingly, Daniel A. Hovey.*                      | South Woodstock, A. S. Leonard.                                    |
| West Killingly, Samuel Hutchins.                        | West Woodstock, Milton Bradford.*                                  |
| East Killingly, Edwin A. Hill.                          | WINDHAM, Willimantic, Fred. Rogers, T. Morton Hills, L. F. Bugbee. |
| PLAINFIELD, Wm. H. COGSWELL.*                           |                                                                    |
| POMFRET, Lewis Williams.                                |                                                                    |
| PUTNAM, H. W. Hough,* Daniel B. Plympton, John D. Kent. |                                                                    |

\* Over sixty years of age.

## LITCHFIELD COUNTY.

H. W. BUEL, M.D., of Litchfield, President.

H. E. GATES, M.D., of Litchfield, Clerk.

|                                                                                  |                                                                         |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| LITCHFIELD, H. W. Buel, D. E. Bostwick,<br>H. E. Gates, Wm. Porter, W. J. Beach. | Lakeville, Benj. A. Welch,* W. Bissell,<br>H. M. Knight.                |
| Northfield, D. B. W. Camp.*                                                      | SHARON, Ralph Deming,* William W.<br>Knight.                            |
| BARKHAMSTED, Riverton, Francis J.<br>Young.                                      | Wolcottville, Erastus Bancroft,* Jeremiah<br>W. Phelps, T. S. Hanchett. |
| BETHLEHEM, Franklin Booth.                                                       | WARREN, John B. Derickson.                                              |
| CORNWALL, Burritt B. North.*                                                     | WASHINGTON, Remus M. Fowler,* Or-<br>lando Browne.                      |
| West Cornwall, Edward Sanford.                                                   | New Preston, Sidney H. Lyman, Edward<br>P. Lyman.                       |
| HARWINTON, Robert E. Ensign.                                                     | WATERBURY, W. S. Munger.                                                |
| MORRIS, Garry H. Miner,* Wm. Deming.                                             | WINCHESTER, West Winsted, Jas. Welch*<br>John W. Bidwell.               |
| NEW MILFORD, J. K. Bacon.                                                        | WOODBURY, Charles H. Webb, Har-<br>mon W. Shove.                        |
| Gaylord's Bridge, G. H. St. John.*                                               | Terryville, Cornelius W. Bull.                                          |
| NORFOLK, William W. Welch.                                                       |                                                                         |
| PLYMOUTH, Samuel T. Salisbury.                                                   |                                                                         |
| Thomaston, William Woodruff,* Ralph S.<br>Goodwin.                               |                                                                         |
| ROXBURY, Myron Downs.*                                                           |                                                                         |
| SALISBURY, John H. Blodgett.                                                     |                                                                         |

## MIDDLESEX COUNTY.

IRA HUTCHINSON, M.D., of Cromwell, President.

MINER C. HAZEN, M.D., of Haddam, Clerk.

|                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MIDDLETOWN, Eliash B. Nye, George W.<br>Burke, John Ellis Blake, Rufus Baker,<br>F. D. Edgerton, Noah Cressy, Seldon<br>W. Noyes, Abraham M. Shew, Win-<br>throp B. Halleck, Joseph W. Alsop, Jr.,<br>Daniel A. Cleaveland. | CROMWELL, Ira Hutchinson.*<br>DURHAM, R. W. Mathewson.<br>EAST HAMPTON, David F. Lawry.<br>ESSEX, Alanson H. Hough, Charles B.<br>Hubbard.*<br>HADDAM, Miner C. Hazen.<br>OLD SAYBROOK, J. H. Granua.<br>PORTLAND, George O. Jarvis,* C. A. Sears<br>Cornelius F. Hammond.<br>SAYBROOK, Deep River, Edwin Bidwell.* |
| CHATHAM, Middle Haddam, Albert B.<br>Worthington.                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                     |
| CHESTER, Sylvester W. Turner.                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                     |
| CLINTON, Devison H. Hubbard.*                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                     |

## TOLLAND COUNTY.

A. R. GOODRICH, M.D., of Vernon Depot, President.

GILBERT H. PRESTON, M.D., of Tolland, Clerk.

|                                                    |                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------|
| TOLLAND, Oliver K. Isham,* G. H. Pres-<br>ton.     | Mansfield Depot, Norman Brigham*<br>Julian N. Parker.               |
| BOLTON, CHAS. F. SUMNER.                           | SOMERS, Orson Wood.*                                                |
| COVENTRY, Maurice B. Bennett.                      | STAFFORD, Wm. N. Clark.*                                            |
| South Coventry, Timothy Dimock.*<br>Henry S. Dean. | West Stafford, Joshua Blodgett.*<br>Stafford Springs, C. B. Newton. |
| ELLINGTON, J. A. Warren.                           | Vernon Depot, A. R. Goodrich.                                       |
| MANSFIELD, Wm. H. Richardson.*                     | Rockville, Stephen G. Risley, Francis L.<br>Dickinson.              |
| Mansfield Center, O. B. Griggs.                    |                                                                     |

\* Over sixty years of age.

## APPENDIX A.

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THE COMMITTEE OF EXAMINATION would respectfully report that they held their Sessions for the Annual Examinations, January 11 and 12, 1871.

There were present, representing the Society,

Charles F. Sumner, M.D., of Bolton, *Ex-officio* President of the Board; Henry W. E. Matthews, M.D., of New Haven, Ashbel Woodward, M.D., of Franklin, Lowel Holbrook, M.D., of Thompson, Lucien S. Wilcox, M.D., of Hartford—and representing the Faculty of the College, Professors Hubbard, Lindsley, White, Ives, Bacon, Sanford and Barker. Dr. Wilcox was appointed to report the proceedings of the Board to the State Society.

Dr. Henry M. Knight, of Lakeville, was appointed to address the graduating class in 1872, and Dr. Henry P. Stearns, of Hartford, in 1873.

The following gentlemen were successful candidates, by examinations, for Degrees; WALTER RUSSELL BARTLETT, North Guilford; Thesis—Progressive Medicine. FREDERICK PORTER BLODGETT, Broad Brook; Thesis—Puerperal Convulsions. CHARLES HYDE GAYLORD, A.M., Ashford; Thesis—Alcohol. HUBERT LAUNDER, Bridgeport; Thesis—Shall Woman be our Physician, with the Valedictory Address. THOMAS NEAL MCLEAN, New Haven; Thesis—The Union of Mind and Matter in reference to Mental Derangements. OZRO ERWIN POWERS, West Meriden; Thesis—Typhoid Fever. FRANK WHEELER TUCKER, Newtown; Thesis—The Mechanism of Natural Labor. WILLIAM FISK WITTER, Sturbridge, Mass; Thesis—Idiopathic Tetanus.

The general excellence of scholarship evinced in these examinations was marked, and indicated not only well sustained efforts on the part of the students during their pupilage, but most decidedly a higher standard of attainments presented to them by a board of accomplished instructors, fully and painfully appreciating their high duties to the profession and to humanity.

The graduating exercises were held at the Medical College, Thursday evening. Dr. Lander delivered the Valedictory, and Dr. H. A. Carrington, of New Haven, made the usual address to the class. President Woolsey presided, and conferred the Degrees.

Respectfully submitted,

L. S. WILCOX, *Secretary.*

Hartford, May 24th, 1871.

## APPENDIX B.

---

### REPORT OF THE COMMITTEE ON REGISTRATION OF THE REGULAR PRACTITIONERS OF MEDICINE IN THE STATE.

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In presenting their report, the Committee desire to say that although very incomplete, it is as perfect as it can well be made under existing circumstances; and if the attempt to perfect a register is to be renewed, it is hoped that the Society will more generally and promptly second the effort.

From many members of the Society no return whatever has been received; and but few of the many regular practitioners in the State, who are not members, could be reached at all. In some instances, however, these deficiencies have been supplied by the Committee from such sources as were available, but it is presumed that the data thus obtained are more or less incorrect.

Your Committee recommend that each County Association be required to take proper steps to induce all regular practitioners in honorable standing, within its limits, to become members of the Society; and that hereafter, the Clerks of County Associations be required to send annually to the Secretary corrected lists, alphabetically arranged, of the regular practitioners in each county, including the place of graduation and date of diploma.

S. G. HUBBARD, M. D.,  
*Chairman.*



## NEW HAVEN COUNTY.

| Names.                | Residence.    | Name of College<br>where Graduated. | Date of Diploma<br>or License. |
|-----------------------|---------------|-------------------------------------|--------------------------------|
| Alling, W. G.         | New Haven,    | Yale,                               | 1870                           |
| Aimes, John M.        | West Haven,   | "                                   | 1857                           |
| Allen, Hull           | Milford,      | N. Y. Univ.                         | License, 1821                  |
| Averill, James J.     | West Meriden, | Yale,                               | 1866                           |
| Bacon, Francis        | New Haven,    | "                                   | 1853                           |
| Bacon, James G.       | West Meriden, |                                     |                                |
| Baldwin, N. C.        | S. Britain,   |                                     |                                |
| Banks, Nehemiah       | Wallingford,  | Yale,                               | 1844                           |
| Barnes, Lewis         | Oxford,       |                                     |                                |
| Barker, George F.     | New Haven,    | Albany,                             | 1863                           |
| Barker, John W.       | "             | Yale,                               | 1860                           |
| Bartlett, Stephen C.  | Naugatuck,    | "                                   | 1866                           |
| Bartlett, Walter R.   | New Haven,    | "                                   | 1871                           |
| Beardsley, L. N.      | Milford,      | "                                   | 1838                           |
| Beardsley, Sheldon    | No. Branford, | "                                   | 1831                           |
| Beardsley, Ambrose    | Birmingham,   |                                     |                                |
| Beecher, Josiah H.    | New Haven,    | Yale,                               | 1846                           |
| Bishop, E. Huggins    | "             | "                                   | 1829                           |
| Bishop, Timothy H.    | "             | "                                   | 1860                           |
| Bissell, Evelyn L.    | "             | "                                   | 1860                           |
| Blake, Eli W.         | "             | "                                   | 1842                           |
| Bradley, W. Lockwood  | "             | "                                   | 1864                           |
| Bronson, Henry        | "             | "                                   | 1827                           |
| Bronson, S. Henry     | "             | "                                   | 1866                           |
| Bulkley, Edward Jr.   | "             | "                                   | 1856                           |
| Burritt, Anthony H.   | Southbury,    | "                                   | 1832                           |
| Canfield, Joel        | Guilford,     | "                                   | 1824                           |
| Carrington, Henry A.  | New Haven,    | Harvard,                            | 1848                           |
| Castle, Frank E.      | Waterbury,    | Yale,                               | 1869                           |
| Catlin, Benjamin H.   | West Meriden, | "                                   | Honorary, 1840                 |
| Chamberlin, Myron N.  | Cheshire,     | "                                   | 1866                           |
| Churchill, Asa H.     | West Meriden, | "                                   | 1867                           |
| Cragin, George E.     | Wallingford,  | "                                   | 1867                           |
| Daggett, David L.     | New Haven,    | "                                   | 1843                           |
| Davis, Charles H. S.  | Meriden,      | N. Y. Univ.                         | 1865                           |
| Davis, Henry          | Wallingford,  | Yale,                               | 1855                           |
| Deacon, John          | Waterbury,    | "                                   | 1847                           |
| DeForest, William B.  | New Haven,    | "                                   | 1840                           |
| Dibble, Frederick L.  | "             | "                                   | 1859                           |
| Dougherty, Thomas     | Waterbury,    |                                     |                                |
| Driggs, Asa J.        | Cheshire,     | Yale,                               | 1826                           |
| DuBois, Cornelius J.  | New Haven,    | "                                   | 1866                           |
| DuBois, Henry A.      | "             | Coll. P. & S., N. Y.                | 1830                           |
| Dutton, Thomas        | Milford,      |                                     |                                |
| Ellwood, D. M.        | Woodbridge,   |                                     | Ct. M. Soc. Lic. 1868          |
| Fitch, F. J.          | West Meriden, |                                     |                                |
| Gallagher, Charles A. | New Haven,    | Coll. P. & S., N. Y.                |                                |
| Gallagher, Frank      | "             | Yale,                               | 1864                           |
| Gaylord, Cha. H.      | West Meriden, | Yale,                               | 1871                           |
| Gilbert, L. M.        | "             | L. I. Hosp. Coll.                   | 1866                           |
| Goodyear, R. B.       | North Haven,  | Yale,                               | 1868                           |
| Griggs, Edward L.     | Waterbury,    | Coll. P. & S., N. Y.                |                                |
| Hall, N. B.           | Branford,     | Yale,                               | 1863                           |
| Harrison, Benjamin F. | Wallingford,  | "                                   | 1836                           |
| Holcomb, H. V. C.     | Branford,     |                                     |                                |
| Hubbard, Stephen G.   | New Haven,    | Dartmouth,                          | 1843                           |
| Ives, Charles L.      | "             | Jefferson,                          | 1864                           |
| Ives, Levi            | New Haven,    | Yale,                               | 1858                           |

NEW HAVEN COUNTY—*continued*

| Names.               | Residence.      | Name of College<br>where Graduated. | Date of Diploma<br>or License. |
|----------------------|-----------------|-------------------------------------|--------------------------------|
| Ives, Robert S.      | New Haven,      | Coll. P. & S., N. Y.                | 188                            |
| Johnson, S. C.       | Seymour,        | Conn. Med. Soc.                     | License, 185                   |
| Kendall, Joshua,     | "               | "                                   |                                |
| Lindsley, Charles A. | New Haven,      | Yale,                               | 182                            |
| Matthews, H. W. E.   | "               | "                                   | 182                            |
| McNeil, Rollin       | "               | "                                   | 182                            |
| Mears, John D.       | Naugatuck,      | "                                   | 184                            |
| Nicoll, John         | New Haven,      | "                                   | 184                            |
| North, Alfred        | Waterbury,      | "                                   |                                |
| Park, Edwin A.       | New Haven,      | "                                   | 186                            |
| Peck, Ozias W.       | "               | "                                   | 182                            |
| Perkins, George F.   | Waterbury,      | "                                   | 186                            |
| Pierpont, Henry      | New Haven,      | "                                   | 18                             |
| Pinney, Charles H.   | Derby,          | Coll. P. & S., N. Y.                | 183                            |
| Platt, Gideon L.     | Waterbury,      | Yale,                               | 182                            |
| Reynolds, G. P.      | Guilford,       | "                                   |                                |
| Ruckholdt, A.        | New Haven,      | Germany,                            |                                |
| Sanford, Leonard J.  | "               | Jeff. Med. Coll.                    | 184                            |
| Sheffrey, Charles W. | Ansonia,        | Yale,                               | 182                            |
| Smith, Ira           | New Haven,      | Harvard,                            | 182                            |
| Smith, Justin        | North Guilford, | "                                   |                                |
| Stillman, R. F.      | North Haven,    | "                                   |                                |
| Stockman, C. Oswald  | New Haven,      | Germ. Univ.,                        |                                |
| Stoddard, Thomas     | Seymour,        | Yale,                               | 183                            |
| Swift, E. D.         | Hamden,         | "                                   |                                |
| Sumner, George O.    | New Haven,      | Ct. Med. Soc. 1824,                 | Honorary, 186                  |
| Talcott, Alvan       | Guilford,       | Yale,                               | 182                            |
| Thomson, Charles S.  | Fair Haven,     | "                                   | 182                            |
| Thomson, William H.  | "               | "                                   | 182                            |
| Totten, Thomas H.    | New Haven,      | "                                   | 182                            |
| Townsend, T. B.      | "               | "                                   | 182                            |
| Treadwell, Oliver F. | "               | "                                   | 182                            |
| Tuttle, Frank B.     | Naugatuck,      | "                                   | 182                            |
| Tyler, David A.      | New Haven,      | "                                   | 184                            |
| Washburn, Edward L.  | "               | "                                   | 186                            |
| White, Moses C.      | "               | "                                   | 184                            |
| White, Wm. H.        | Fair Haven,     | "                                   |                                |
| Whittemore, F. J.    | New Haven,      | N. Y. Univ.                         | 183                            |
| Webb, D. M.          | Madison,        | Yale,                               | 182                            |
| Winchell, A. E.      | New Haven,      | Coll. P. & S., N. Y.                | 186                            |
| Wixon, Hanford L.    | "               | Yale,                               | 186                            |

## HARTFORD COUNTY.

|                      |                |                                                            |                   |
|----------------------|----------------|------------------------------------------------------------|-------------------|
| Allen, Francis F.    | North Granby,  | Yale,                                                      | 183               |
| Babcock, E. D.       | New Britain,   | Geneva,                                                    | 184               |
| Barrows, A. W.       | Hartford,      | Yale,                                                      | 184               |
| Beresford, Samuel B. | "              | { R. C. S., Edin.<br>M. D., Univ. Edin.<br>R. C. S., Lond. | 182<br>182<br>182 |
| Brace, Edward        | West Hartford, | Castleton, Vt.                                             | 182               |
| Brandegge, E.        | Berlin,        | Yale,                                                      | 182               |
| Bromley, Daniel T.   | Hartford,      | "                                                          | 182               |
| Brown, Chauncey      | Farmington,    | Bowdoin,                                                   | 182               |
| Brownell, Edward R.  | E. Hartford,   | Berkshire,                                                 | 182               |

HARTFORD COUNTY—*continued.*

| Names.                | Residence.         | Name of College<br>where Graduated. | Date of Diploma<br>or License. |
|-----------------------|--------------------|-------------------------------------|--------------------------------|
| Brownell, William R.  | Hartford,          | N. Y. Univ.                         | 1852                           |
| Bunce, H. C.          | Glastenbury,       | Yale,                               | 1850                           |
| Burnap, S. R.         | Windsor Locks,     | Coll. P. & S., N. Y.                | 1862                           |
| Butler, John S.       | Hartford,          | Jeff. Med. Coll.                    | 1828                           |
| Byington, Noah H.     | Southington,       | Yale,                               | 1834                           |
| Carrington, Charles   | Farmington,        | Coll. P. & S., N. Y.                | 1860                           |
| Camp, J. W.           | Bristol.           | Yale,                               | 1835                           |
| Case, Jairus          | Granby,            | "                                   | 1824                           |
| Childs, Henry E.      | E. Hartford,       | Harvard,                            | 1869                           |
| Childs, Seth L.       | "                  | Woodstock, Vt.                      | 1835                           |
| Collins, William D.   | Hartford,          | Harvard,                            | 1866                           |
| Clary, George         | New Britain,       | Yale,                               | 1857                           |
| Comings, B. N.        | "                  | Castleton, Vt.                      | 1845                           |
| Cooke, E. F.          | Wethersfield,      | Yale,                               | 1820                           |
| Crary, David          | Hartford,          | Castleton, Vt.                      | 1834                           |
| Crary, David, Jr.     | "                  | Yale.                               | 1869                           |
| Davis, G. P.          | "                  | Coll. P. & S., N. Y.                | 1869                           |
| Denison, Charles      | "                  | Vermont Univ.                       | 1869                           |
| Denny, James H.       | "                  | Harvard,                            | 1867                           |
| Dimmeck, Daniel W.    | West Suffield,     | Dartmouth,                          | 1866                           |
| Dunbar, Edward M.     | Hartford,          | Harvard,                            | 1868                           |
| Easton, Martin W.     | "                  | Coll. P. & S., N. Y.                | 1867                           |
| Edwards, George W.    | North Granby,      | Yale,                               | 1862                           |
| Ellsworth, P. W.      | Hartford,          | Coll. P. & S., N. Y.                | 1839                           |
| Elton, William        | Burlington,        | Berkshire,                          | 1838                           |
| Fisk, Marcus L.       | Warehouse Point,   | Penn. Univ.                         | 1842                           |
| Fuller, Horace S.     | Hartford,          | Coll. P. & S., N. Y.                | 1865                           |
| Fox, Roswell          | Wethersfield,      | N. Y. Univ.                         | 1846                           |
| Gray, Henry           | Bloomfield,        | Dartmouth,                          | 1847                           |
| Griswold, Rufus W.    | Rocky Hill,        | Coll. P. & S., N. Y.                | 1854                           |
| Hamlin, C.            | E. Granby,         | Yale,                               | 1823                           |
| Hart, Charles R.      | N. Britain,        | Coll. P. & S., N. Y.                | 1859                           |
| Hart, Frederick A.    | Southington,       | Yale,                               | 1838                           |
| Hart, S. W.           | New Britain,       | "                                   | 1855                           |
| Hastings, P. M.       | Hartford,          | Coll. P. & S., N. Y.                | 1842                           |
| Hawley, George B.     | "                  | Yale,                               | 1836                           |
| Hawley, George F.     | "                  | Coll. P. & S., N. Y.                | 1867                           |
| Higgins, Gordon A. J. | Plymouth,          | Bellevue Hosp. Coll.                | 1869                           |
| Hubbard, G. A.        | South Glast'nbury, |                                     |                                |
| Hudson, William M.    | Hartford,          | Jeff. Med. Coll.                    | 1855                           |
| Hunt, E. K.           | "                  | " "                                 | 1838                           |
| Hurlbut, George A.    | Glastenbury,       | Coll. P. & S., N. Y.                | 1865                           |
| Jackson, J. C.        | Hartford,          | Jeff. Med. Coll.                    | 1847                           |
| Jarvis, George C.     | "                  | N. Y. Univ.                         | 1861                           |
| Leonard, E. R.        | Broad Brook,       | Conn. Med. Soc'y,                   | License, 1866                  |
| Lewis, George F.      | Collinsville,      | Yale,                               | 1865                           |
| Lewis, John B.        | Hartford,          | N. Y. Univ.                         | 1853                           |
| Lyon, Edward B.       | New Britain,       | Berkshire,                          | 1862                           |
| Lyon, Irving W.       | Hartford,          | Coll. P. & S., N. Y.                | 1863                           |
| Mason, Jarvis K.      | Suffield,          | Harvard,                            | 1861                           |
| Mayer, Nathan         | Hartford,          | Cincin. Med. Coll.                  | 1857                           |
| McIntosh, L. W.       | East Hartford,     |                                     |                                |
| Moody, George A.      | Plainville,        | Yale,                               | 1844                           |
| Miner, Thomas         | Hartford,          | Brown Univ.                         | 1824                           |
| Morrison, Albert      | Windsor,           | Coll. P. & S., N. Y.                | 1847                           |
| O'Flaherty, John      | Hartford,          | Albany,                             | 1864                           |
| Poll, Daniel          | "                  | Yale,                               | 1869                           |
| Parsons, E. F.        | Thompsonville,     | Coll. P. & S., N. Y.                | 1858                           |

HARTFORD COUNTY—*continued.*

| Names.                         | Residence.       | Name of College where Graduated. | Date of Diploma or License. |
|--------------------------------|------------------|----------------------------------|-----------------------------|
| Pease, Levi S.                 | Thompsonville,   | Penn. Univ.                      | 1846                        |
| Preston, S. C.                 | Hartford,        | Berkshire,                       | 1840                        |
| Palma de Vigo de Cortez, C. A. | "                | Univ., S. Salvador,              | 1868                        |
| Rockwell, S. W.                | E. Windsor Hill, | Ct. Med. Soc. 1844,              | Honorary, 1855              |
| Rising, A.                     | Suffield,        | Berkshire,                       | 1826                        |
| Rising, H. M.                  | S. Glastenbury,  | Yale,                            | 1868                        |
| Russell, Gurdon W.             | Hartford,        | "                                | 1837                        |
| Sanford, George W.             | Tariffville,     | Berkshire,                       | 1836                        |
| Scott, William                 | N. Manchester,   | "                                | 1831                        |
| Shepherd, Geo. R.              | Collinsville,    | Yale,                            | 1866                        |
| Stearns, Henry Putnam          | Hartford,        | Yale,                            | 1855                        |
| Stevens, George B.             |                  |                                  | 1870                        |
| Strickland, R. L.              | Enfield,         | Albany,                          | 1839                        |
| Stone, J. S.                   | New Britain,     | Coll. P. & S., N. Y.             | 1865                        |
| Storrs, Melancthon             | Hartford,        | Yale,                            | 1854                        |
| Tiffany, R. W.                 | Collinsville,    | Castleton, Vt.                   | 1837                        |
| Tremaine, W. H.                | Hartford,        | Berkshire,                       | 1838                        |
| Wainwright W. A. M.            | "                | Coll. P. & S., N. Y.             | 1867                        |
| Warner, Abner S.               | Wethersfield,    | Dartmouth,                       | 1847                        |
| Way, H. E.                     | Bristol,         | N. Y. Univ.                      | 1849                        |
| Wells, Gaylord                 | West Hartford,   |                                  | License, 1827               |
| Wheeler, Frank                 | Farmington,      | Coll. P. & S., N. Y.             | 1852                        |
| White, R. A.                   | Simsbury,        | Yale,                            | 1832                        |
| Wilcox, Lucian S.              | Hartford,        | Coll. P. & S., N. Y.             | 1855                        |
| Wilson, S. A.                  | Windsor,         | Yale,                            | 1852                        |
| Wood, William                  | E. Windsor Hill, | N. Y. Univ.                      | 1847                        |

## NEW LONDON COUNTY.

|                      |                 |                      |      |
|----------------------|-----------------|----------------------|------|
| Abbott, F. S.        | Norwich,        | Berkshire,           | 1865 |
| Allen, E. B.         | "               | Yale,                | 1839 |
| Birchard, William M. | Uncasville,     | Georgetown, D. C.    | 1866 |
| Bolles, J. C.        | Montville,      | Castleton,           | 1840 |
| Braman, F. N.        | New London,     | Bellevue,            | 1866 |
| Brewer, M. K.        | Sprague,        | Berkshire,           | 1842 |
| Carleton, Chas. M.   | Norwich,        | Harvard,             | 1861 |
| Cassidy, Patrick     | "               |                      |      |
| Chapman, A. T.       | Mystic,         | Coll. P. & S., N. Y. | 1843 |
| Coates, A. W.        | Mystic River,   | Yale,                | 1843 |
| Coates, E. F.        | Mystic Bridge,  | "                    | 1863 |
| Cornwell, H. S.      | New London,     | "                    | 1864 |
| Chase, Seth L.       | Colchester,     | Coll. P. & S., N. Y. | 1860 |
| Dyer, Elijah         | Norwich,        | Berkshire,           | 1828 |
| Farnsworth, R.       | "               |                      |      |
| Francis, D. P.       | New London,     | Berkshire,           | 1846 |
| Fuller, A. B. F.     | Norwich,        | Castleton,           | 1831 |
| Graves, T. T.        | "               | Harvard,             | 1871 |
| Gray, Alvah          | No. Stonington, | Yale,                | 1863 |
| Gray, John           | Mystic River,   | Yale,                | 1863 |
| Green, R.            | Lebanon,        |                      |      |
| Griffin, E. D.       | Old Lyme,       | Coll. P. & S., N. Y. | 1865 |
| Gulliver, D. F.      | Norwich,        | Jefferson,           | 1852 |
| Haile, A. B.         | "               | Yale,                | 1841 |
| Harris, G. W.        | Old Lyme,       |                      |      |
| Hebron, Albert       | New London,     | Univ. Penn.          | 1850 |

NEW LONDON COUNTY—*continued.*

| Names.             | Residence.      | Name of College<br>where Graduated. | Date of Diploma<br>or License. |
|--------------------|-----------------|-------------------------------------|--------------------------------|
| Hyde, William      | Stonington,     | Harvard,                            | 1830                           |
| Johnson, Samuel    | Bozrah,         | Yale,                               | 1829                           |
| Kinney, E. C.      | Norwich,        |                                     |                                |
| Kinney, Lot W.     | No. Stonington, | Castleton,                          | 1852                           |
| Manning, Mason     | Mystic,         | Yale,                               | 1818                           |
| Manwarring, R. A.  | New London,     | "                                   | 1833                           |
| Maynard, S. E.     | Norwich,        | "                                   | 1847                           |
| Martin, J. W.      | "               |                                     |                                |
| Miner, O. E.       | Noank,          | Univ., N. Y.                        | 1857                           |
| Morgan, Frederick  | Colchester,     | Yale,                               | 1819                           |
| Nelson, A. W.      | New London,     | Harvard,                            | 1861                           |
| Noyes, R.          | Old Lyme,       |                                     |                                |
| Osgood, Charles    | Norwich,        |                                     |                                |
| Paddock, Lewis S.  | "               | Univ., N. Y.                        | 1854                           |
| Parsons, E. W.     | Colchester,     |                                     |                                |
| Perkins, F. A.     | East Lyme,      |                                     |                                |
| Perkins, W. S. C.  | Norwich,        | Coll. P. & S., N. Y.                | 1860                           |
| Phinney, E.        | "               | Yale,                               | 1835                           |
| Porter, Isaac G.   | New London,     | Univ. Penn.                         | 1833                           |
| Potter, Henry      | "               | Yale,                               | 1867                           |
| Roath, B. F.       | Norwich,        | Castleton,                          | 1834                           |
| Soule, William     | Griswold,       | Yale,                               | 1851                           |
| Stanton, George D. | Stonington,     | Bellevue,                           | 1865                           |
| Tillinghast, T. A. | Wagleville,     | Castleton,                          | 1867                           |
| Tracy, L. A.       |                 |                                     |                                |
| Warren, Levi       | Norwich,        | Univ., N. Y.                        | 1854                           |
| Weaver, James L.   | Preston,        | Yale,                               | 1868                           |
| Witter, William    | Greenville,     | "                                   | 1865                           |
| Woodward, Ashbel   | Franklin,       | Bowdoin,                            | 1829                           |

## FAIRFIELD COUNTY.

|                        |               |                       |                |
|------------------------|---------------|-----------------------|----------------|
| Abernethy, Augustus H. | Bridgeport,   | Yale,                 | 1864           |
| Baldwin, James         | Danbury,      |                       |                |
| Barber, A. D.          | Bethel,       |                       |                |
| Barbour, James E.      | Norwalk,      | Coll. P. & S., N. Y.  | 1865           |
| Beardsley, Edward M.   | Monroe,       |                       |                |
| Beers, George L.       | Bridgeport,   | Coll. P. & S., N. Y.  | 1865           |
| Bennett, E. P.         | Danbury,      | Berkshire,            | 1826           |
| Bennett, W. C.         | "             | Coll. P. & S., N. Y.  | 1860           |
| Birch, George W.       | No. Stamford, | Yale,                 | 1882           |
| Blackman, George       | Westport,     | L., Ct. M. Soc. 1827, | Yale Hon. 1845 |
| Bouton, George B.      | "             | Yale,                 | 1856           |
| Brown, James D.        | Bridgeport,   | Edinburgh Univ.       | 1832           |
| Brownson, William G.   | New Canaan,   | Coll. P. & S., N. Y.  | 1863           |
| Burritt, H. L. W.      | Bridgeport,   | Yale,                 | 1844           |
| Cumming, James R.      | "             | Coll. P. & S., N. Y.  | 1862           |
| Dunham, Martin V. B.   | Greenfield,   | Harvard.              | 1867           |
| Dyer, George           | Trumbull,     | Yale,                 | 1828           |
| Emery, A. E.           | Wilton,       | Burlington, Vt.       | 1865           |
| Gray, R. M.            | Stratford,    |                       |                |
| Gregory, Elijah        | Bridgeport,   | Yale,                 | 1856           |
| Gregory, Ira           | Norwalk,      | "                     | 1829           |
| Gregory, James G.      | "             | Coll. P. & S., N. Y.  | 1868           |
| Haight, N. D.          | Stamford,     | Yale,                 | Honorary, 1870 |

FAIRFIELD COUNTY—*continued.*

| Names.              | Residence.      | Name of College<br>where Graduated | Date of Diploma<br>or License. |
|---------------------|-----------------|------------------------------------|--------------------------------|
| Hickok, O. S.       | Ridgefield,     |                                    |                                |
| Higgins, R. L.      | So. Norwalk,    | Bellevue,                          | 1867                           |
| Hill, John          | "               | Univ., N. Y.                       | 1845                           |
| Hill, Seth          | Stepney Depot,  | Yale,                              | 1867                           |
| Hoyt, James H.      | Stamford.       |                                    |                                |
| Hubbard, Robert     | Bridgeport,     | Yale,                              | 1851                           |
| Lauder, Robert      | "               | "                                  | 1871                           |
| Lewis, George F.    | "               | "                                  | 1856                           |
| Lockwood, W. A.     | Norwalk,        | Coll. P. & S., N. Y.               | 1864                           |
| Lynes, Samuel       | "               | "                                  | 1846                           |
| McLean, J. W.       | Norwalk,        |                                    |                                |
| Munson, Byron W.    | Easton,         | Yale,                              | 1869                           |
| Nash, David H.      | Bridgeport,     | "                                  | 1834                           |
| Nash, William B.    | "               | Conn. Med. Soc'y,                  | License, 1807                  |
| Noyes, Samuel S.    | New Canaan,     | Yale,                              | Honorary, 1845                 |
| Ohnesorg, Gustave   | Bridgeport,     | Univ. Berlin,                      | 1862                           |
| Pardee, Moses B.    | So. Norwalk,    | Albany,                            | 1855                           |
| Porter, George L.   | Bridgeport,     | Jeff. Med. Coll.                   | 1862                           |
| Richards, Lewis     | New Canaan,     | Coll. P. & S., N. Y.               |                                |
| Roberts, C. S.      | Westport,       | "                                  | 1864                           |
| Sands, Samuel       | Darien,         | Westchester Co., N. Y., M.Soc. L.  | 1848                           |
| Shelton, Gould A.   | Huntington,     | Yale,                              | 1869                           |
| Sherwood, Justus    | Southport,      | "                                  | 1827                           |
| Smith, Andrew J.    | Bridgeport,     | Coll. P. & S., N. Y.               | 1863                           |
| Starkweather, E. P. | Nichols' Farms, | Berkshire,                         | 1843                           |
| Todd, William S.    | Ridgefield,     | Coll. P. & S., N. Y.               | 1869                           |
| Trowbridge, W. H.   | No. Stamford,   |                                    |                                |
| Wakeman, Moses W.   | Redding,        | Yale,                              | 1854                           |
| Williams, A. L.     | Brookfield,     |                                    |                                |
| Winslow, E. H.      | Southport,      | Univ., N. Y.                       | 1858                           |
| Wood, Luther H.     | Monroe,         | Yale,                              | 1869                           |

## LITCHFIELD COUNTY.

|                    |               |                      |                |
|--------------------|---------------|----------------------|----------------|
| Bacon, J. Knight,  | New Milford,  | Yale,                | 1864           |
| Bancroft, E.       | Wolcottville, |                      |                |
| Barber, A. E.      | "             | Berkshire,           | 1854           |
| Beach, W. J.       | Litchfield,   | Coll. P. & S., N. Y. | 1870           |
| Bidwell, John W.   | W. Winsted,   | Berkshire,           | 1846           |
| Bissell, William   | Lakeville,    |                      |                |
| Blodgett, J. H.    | Salisbury,    |                      |                |
| Booth, F.          | Bethlehem,    | Bellevue,            | 1864           |
| Bostwick, David E. | Litchfield,   | Albany,              | 1846           |
| Browne, O.         | Washington,   |                      |                |
| Buel, Henry W.     | Litchfield,   | Coll. P. & S., N. Y. | 1847           |
| Bull, C. W.        | Terryville,   | Yale,                | 1867           |
| Camp, D. B. W.     | Northfield,   |                      |                |
| Deming, Ralph      | Sharon,       | Yale,                | Honorary, 1857 |
| Deming, William    | Morris,       | Berkshire,           | 1856           |
| Derickson, John B. | Warren,       | Jefferson, Phil.     | 1850           |
| Downes, M.         | Roxbury,      |                      |                |
| Ensign, R. E.      | Harwinton,    |                      |                |
| Fowler, R. M.      | Washington,   | Yale,                | 1815           |
| Gates, H. E.       | Litchfield,   | L. I. Hosp. Coll.    | 1861           |

LITCHFIELD COUNTY—*continued.*

| Names.             | Residence.     | Name of College<br>where Graduated. | Date of Diploma<br>or License. |
|--------------------|----------------|-------------------------------------|--------------------------------|
| Gillette,          | Falls Village, |                                     |                                |
| Goodwin, Ralph S.  | Thomaston,     | Coll. P. & S., N. Y.                | 1866                           |
| Hanchett, T. S.    | Wolcottville,  |                                     |                                |
| Knight, H. M.      | Lakeville,     | Berkshire.                          | 1849                           |
| Knight, W. W.      | Sharon,        | "                                   | 1856                           |
| Lyman, S. H.       | New Preston,   |                                     |                                |
| Lyman, E. P.       | "              |                                     |                                |
| Malbie, C. B.      | Falls Village, |                                     |                                |
| Miner, G. H.       | Morris,        | Yale,                               | 1824                           |
| Munger, W. S.      | Watertown,     | "                                   | 1855                           |
| North, Burritt B.  | Cornwall,      |                                     |                                |
| Orton, J. G.       | Lakeville,     | Bellevue,                           | 1870                           |
| Phelps, J. W.      | Wolcottville,  |                                     |                                |
| Porter, William,   | Litchfield,    | Buffalo Univ.                       | 1851                           |
| Salisbury, S. T.   | Plymouth,      |                                     |                                |
| Sanford, Edward    | W. Cornwall,   |                                     |                                |
| Shove, H. W.       | Woodbury,      | Yale,                               | 1853                           |
| St. John, G. H.    | Gaylordsville, | "                                   | Lic. 1827, Hon. 1845           |
| Webb, C. H.        | Woodbury,      |                                     |                                |
| Welch, Benjamin A. | Lakeville,     | Yale,                               | 1823                           |
| Welch, James       | W. Winsted,    |                                     |                                |
| Welch, John H.     | Norfolk,       | Berkshire,                          | 1848                           |
| Welch, William W.  | "              | Yale,                               | 1839                           |
| Woodruff, William  | Thomaston,     | "                                   | 1826                           |
| Wright, A. A.      | Ganaan,        |                                     |                                |
| Young, Francis J.  | Riverton,      | Yale,                               | 1866                           |

## WINDHAM COUNTY.

|                       |                  |                                       |      |
|-----------------------|------------------|---------------------------------------|------|
| Balcam, Horace E.     | Windham,         | Berkshire,                            | 1867 |
| Baldwin, Elijah       | Canterbury,      | Harvard,                              | 1845 |
| Bennett, Farnam O.    | Westford,        | Berkshire,                            | 1859 |
| Bradford, Milton      | West Woodstock,  | Harvard,                              | 1831 |
| Bugbee, LaFayette     | Willimantic,     | Coll. P. & S., N. Y.                  | 1866 |
| Burgess, Frank S.     | Moosup,          | Albany,                               | 1850 |
| Campbell, H.          | Voluntorda,      |                                       |      |
| Coggswell, William H. | Plainfield,      | Yale,                                 | 1823 |
| Gay, Allen E.         | Moosup,          | Harvard,                              | 1869 |
| Hill, Edwin A.        | E. Killingly,    | Harvard,                              | 1850 |
| Hills, T. Morton      | Willimantic,     | Yale,                                 | 1863 |
| Holbrook, Lowell      | Thompson,        | N. Y. Univ.                           | 1848 |
| Hosford, Charles      | "                | "                                     | 1863 |
| Hough, Henry W.       | Putnam,          | Yale,                                 | 1836 |
| Hovey, Daniel A.      | S. Killingly,    | L., Ct. M. Soc. 1830, Yale Hon.       | 1847 |
| Hughes, D.            | Hampton,         |                                       |      |
| Huntington, Eliphalet | Windham,         | Dartmouth,                            | 1847 |
| Hutchens, S.          | West Killingly,  |                                       |      |
| Kent, J. D.           | Putnam,          |                                       |      |
| Leonard, A. S.        | S. Woodstock,    | Coll. P. & S., N. Y.                  | 1866 |
| Lewis, William A.     | Moosup,          | Harvard,                              | 1851 |
| Marcy, Lorenzo        | Woodstock,       | License, 1816, Yale Hon.              | 1839 |
| Plimpton, D. B.       | Putnam,          | L., Mass. Soc. 1846, N. Y. M. C. Hon. | 1859 |
| Rogers, Charles H.    | Central Village, | Yale,                                 | 1847 |
| Rogers, Frederick     | Willimantic,     | N. Y. Univ.                           | 1863 |
| Simmons, John H.      | Ashford,         | Yale,                                 | 1833 |
| Whitcomb, James B.    | Brooklyn,        | Bowdoin,                              | 1826 |
| Williams, Lewis       | Pomfret,         | Harvard,                              | 1842 |

WINDHAM COUNTY—*continued.*

| Names.              | Residence.    | Name of College<br>where Graduated. | Date of Diploma<br>or License. |
|---------------------|---------------|-------------------------------------|--------------------------------|
| Witter, John        | R. Woodstock, | Yale,                               | 1857                           |
| Witter, Orrin       | Chaplin,      | "                                   | Honorary, 1845                 |
| Woodbridge, William | Brooklyn,     | "                                   | 1844                           |

## MIDDLESEX COUNTY.

|                        |                |                                   |                |
|------------------------|----------------|-----------------------------------|----------------|
| Alsop, J. W., Jr.      | Middletown,    |                                   |                |
| Baker, Rufus           | "              |                                   |                |
| Bidwell, Edwin         | Deep River,    | Yale,                             | 1847           |
| Blake, J. E.           | Middletown,    |                                   |                |
| Burke, George W.       | "              |                                   | 1843           |
| Cleveland, D. A.       | "              |                                   |                |
| Cressy, Noah           | "              | Berkshire,                        | 1863           |
| Edgerton, Francis D.   | "              | Univ. Vt. 1863, C. P. & S., N. Y. | 1864           |
| Grannis, John H.       | Old Saybrook,  | Yale,                             | 1868           |
| Halleck, Winthrop B.   | Middletown,    | L. I. Hosp. Coll.                 | 1864           |
| Hammond, C. E.         | Portland,      |                                   |                |
| Hazen, Miner C.        | Haddam,        | Univ. Mich.                       | 1855           |
| Hough, Alanson H.      | Essex,         | Yale,                             | 1832           |
| Hutchinson, Ira        | Cromwell,      | "                                 | 1825           |
| Hubbard, Charles H.    | Essex,         | "                                 | 1860           |
| Hubbard, Denison H.    | Clinton,       | "                                 | 1829           |
| Jarvis, George O.      | Portland,      | L., Ct. M. Soc. 1817,             | Yale Hon. 1846 |
| Lawry, D. F.           | East Hampton,  |                                   |                |
| Mathewson, Rufus W.    | Durham,        | Coll. P. & S., N. Y.              | 1837           |
| Morgan, J.             | Middletown,    | Yale,                             | 1863           |
| Noyes, Sheldon W.      | "              | Univ. Penn.                       | 1865           |
| Nye, Elisha B.         | "              | Yale,                             | 1838           |
| Sears, C. A.           | Portland,      | Univ. N. Y.                       | 1867           |
| Shew, Abram M.         | Middletown,    | Jeff. Med. Coll.                  | 1869           |
| Turner, Sylvester W.   | Chester,       | Yale,                             | 1842           |
| Worthington, Albert B. | Middle Haddam, | "                                 | 1843           |

## TOLLAND COUNTY.

|                        |                   |                              |                |
|------------------------|-------------------|------------------------------|----------------|
| Bennett, M. B.         | Coventry,         | Berkshire,                   | 1863           |
| Blodgett, Joshua       | West Stafford,    | "                            | 1825           |
| Brigham, Norman        | Mansfield Depot,  | Conn. Med. Soc.              | License, 1812  |
| Brown, W. L. M.        | Hebron,           |                              |                |
| Clark, William N.      | Stafford,         |                              |                |
| Dean, Henry S.         | S. Coventry,      | Jefferson Med Coll.          | 1852           |
| Dickinson, F. L.       | Rockville,        | Yale,                        | 1840           |
| Dimock, Timothy        | S. Coventry,      | "                            | 1823           |
| Goodrich, A. R.        | Vernon Depot,     | Berkshire,                   | 1846           |
| Griggs, O. B.          | Mansfield Center, | Univ. N. Y.                  | 1847           |
| Hall, N. G.            | Rockville,        | Yale,                        | 1860           |
| Isham, Oliver K.       | Tolland,          | "                            | 1822           |
| Newton, C. B.          | Stafford Springs, | "                            | 1851           |
| Parker, Julian N.      | Mansfield Depot,  | "                            | 1867           |
| Preston, G. H.         | Tolland,          | Castleton, Vt.               | 1844           |
| Richardson, William H. | Mansfield,        | Yale,                        | 1834           |
| Risley, S. G.          | Rockville,        | Univ. N. Y.                  | 1846           |
| Sumner, C. F.          | Bolton,           | Coll. P. & S. Western, N. Y. | 1840           |
| Warren, J. A.          | Ellington,        |                              |                |
| Wood, Orson            | Somers,           | Yale,                        | Honorary, 1840 |



## APPENDIX C.

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### AN ACT TO PROMOTE MEDICAL SCIENCE.

PASSED AT THE MAY SESSION, A. D. 1871.

*Be it enacted by the Senate and House of Representatives in General Assembly convened:*

SEC. 1. It shall be lawful for the first selectman of any town having a population exceeding twenty thousand persons, and for the mayor of any city having like population, to deliver to the professors and teachers in chartered medical colleges in this State, and for such professors and teachers to receive the body of any deceased person in such town or city, for the purposes of medical and surgical study: *provided*, that said body shall not have been buried, and shall not have been claimed for burial by any relative or friend within twenty-four hours after death; *and provided also*, that the body of no person who may be known to have relatives or friends, shall be so delivered or received without the consent of such relatives or friends; *and provided also*, that the body of no person detained on any civil process, or for trial on a charge of any criminal offence, nor of any traveler or stranger, nor of any person who shall be known at any time to have expressed a desire that his or her body should be buried, shall be delivered or received as aforesaid; *and provided also*, that in case the remains or body of any person so delivered or received shall be subsequently claimed by any surviving relative or friend for burial, they shall be given up to such relative or friend for that purpose. And it shall be the duty of said professors and teachers decently to bury in some public cemetery, the remains of all bodies after the same shall have answered the purposes of study aforesaid. And it shall be the duty of every medical college receiving such bodies, to keep a record of the names, sex, and last residence of every person so received and the place where the remains of such person, or persons, are interred.

SEC. 2. The remains or bodies of such persons as may be received by the professors and teachers aforesaid, shall be used for the purposes of medical and surgical study alone, in a manner consistent with public propriety, and in this State only ; and no person shall use such remains for any other purpose, nor in any manner traffic in, nor remove, nor cause, nor permit such body or remains to be removed beyond the limits of this State.

SEC. 3. Every person who shall knowingly and willfully violate any of the provisions of this act, and every person who shall deliver or receive any such body or remains for purposes of speculation or pecuniary profit shall, on conviction thereof, be punished by a fine not less than one hundred dollars and not exceeding one thousand dollars, and by imprisonment in a common jail not more than one year.

SEC. 4. All laws inconsistent herewith are hereby repealed: but nothing herein contained shall be so construed as to affect or repeal any laws now in force providing for the protection of burying grounds or places of sepulture.

Approved by the Governor, July 27th, 1871.

## EDITORIAL NOTICES.

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In presenting to the Society the Proceedings for this year, the PUBLISHING COMMITTEE desire to say that no one can regret more than themselves the unusual delay in the publication. Important papers withheld from the committee rendered it impossible even to *commence* printing until after the middle of July. A further delay was allowed until the early part of September with the expectation of receiving other papers asked for by the Society; and on final failure to receive them, the Committee decided to proceed with the publication of such papers on hand at that time as would be most acceptable to the Society.

The Committee appointed to present a revised list of Fellows and Officers of the Society from its first organization to the present time have made no report to the Committee of Publication.

It is believed that the labors of the Committee on Registration of Regular Practitioners in the State, will be duly appreciated. The alphabetical list prepared by that Committee has been revised and about fifty names added since the report was presented to the Society.

It is earnestly requested that the names of all regular practitioners which do not appear in the list now printed may be presented to the appropriate committee next year. and that physicians who have not furnished the dates of their diplomas and places of graduation will supply those deficiencies and render it possible to prepare a complete list hereafter. Attention is therefore directed to the reasonable request of the Committee as contained in their report (Appendix B).

The entire profession will rejoice that at last the Legislature of this State has passed an Act to Promote Medical Science (see Appendix C).

With a feeling of sadness we present a long list (see Obituary Tablets) of brave and good men who have fallen from our ranks the past year, and do what we can to perpetuate their memory as they are embalmed in the hearts of co-laborers in the noble work of alleviating human suffering.

In conclusion, the Committee would express the hope, that hereafter every physician who prepares a paper which he thinks worthy of the attention of the State Society, will have it **READY FOR THE PRINTER** before the meeting of the *Annual Convention*.

The Proceedings are sent by mail to all members of the Society not in arrears for taxes, to all Honorary Members and to Delegates from other Societies, to the Secretaries of other State Societies, and to Editors of Medical Journals who desire them.

Persons entitled to the Proceedings who fail to receive them are requested to send their names and Post Office address to the Secretary.

In behalf of Committee of Publication,

M. C. WHITE,

*Secretary of the Conn. Med. Society.*

113 George Street, New Haven, Conn.

The spacious and well-appointed dissecting rooms are open during the six colder months, and are amply supplied with anatomical material at a reasonable charge, under the personal direction of the Demonstrator.

The Museum contains a large collection of natural and morbid specimens, as well as of casts, models and plates, and is, together with the collections in Natural History, the Mineralogical Cabinet, and Libraries of the Medical and Academical Departments, open to Students.

**DEGREE.**—The Candidate for a Degree must deposit with the Dean, two weeks before the Examination, a *Thesis* written by himself, upon some medical subject, together with satisfactory certificates from a respectable and regular practitioner of medicine, that he is twenty-one years of age, possesses a good moral character, and has studied medicine for three years under his direction. (If a graduate of College, only two years of medical study are required). He must also have attended two full courses of public lectures, at least one of which must have been in this Institution.

#### **FACULTY.**

NOAH PORTER, D.D., LL.D., *President.*

BENJAMIN SILLIMAN, M.D., *Professor of General and Applied Chemistry.*

STEPHEN G. HUBBARD, M.D., *Professor of Obstetrics and Diseases of Women and Children.*

CHARLES A. LINDSLEY, M.D., *Professor of Materia Medica and Therapeutics.*

FRANCIS BACON, M.D., *Professor of the Principles and Practice of Surgery.*

MOSES C. WHITE, M.D., *Professor of Pathology and Microscopy.*

LEONARD J. SANFORD, M.D., *Professor of Anatomy and Physiology.*

CHAS. L. IVES, M.D., *Professor of Theory and Practice of Medicine.*

GEORGE F. BARKER, M.D., *Professor of Physiological Chemistry and Toxicology.*

ABRAM M. SHEW, M.D., *Superintendent of the General Hospital for the Insane, Lecturer on Insanity.*

WM. L. BRADLEY, M.D., *Demonstrator of Anatomy.*

Lecture Fees for the Winter Term, \$100; Matriculation, \$5; Demonstrator's Ticket, \$5; Graduation Fee, \$25.

Fees for the Summer Term, \$60; Contingent expenses for chemicals and apparatus in the Laboratory, \$10.

Payment for each Term is required in advance.

Annual Circular giving full information in regard to both Winter and Summer Sessions, sent on application.

C. A. LINDSLEY, M.D., *Dean,*  
NEW HAVEN, CONN.

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The next Annual Meeting of the President and Fellows will be held in New Haven, at 3 P.M., the Fourth Wednesday in May, 1872.

The Annual Convention of the Society will be held in New Haven the next day after the Annual Meeting of the President and Fellows at 9 A.M.

**Second Series, Vol. III, No. 1.**

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**MEDICAL COMMUNICATIONS,**

WITH THE

**PROCEEDINGS**

OF THE

***Seventy-Sixth Annual Convention***

OF THE

**CONNECTICUT MEDICAL SOCIETY,**

HELD AT

**New Haven, May 27th and 28th, 1868.**

---

**NEW HAVEN:**

**Published by the Society;**

**MOSES C. WHITE, M.D., Secretary.**

-----  
**1868.**

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**TUTTLE, MOREHOUSE & TAYLOR, STEAM PRINTERS.**

## Medical Institution of Yale College.

The Winter Session for 1868-69, being the Fifty-Sixth Annual Course of LECTURES, begins on Thursday, September 10th, and continues seventeen weeks.

The Summer Session for 1869, commences Wednesday, February 10th, and continues five months and a half, with a Vacation of one week in May.

During the Summer Session recitations and familiar lectures are conducted daily, Practical Chemistry is taught by systematic work in the Laboratory, and Histology and Pathology by the use of the Microscope.

Clinical Instruction, both Medical and Surgical, is given regularly throughout the year.

An Examination is held and Degrees are conferred at the close of each Session.

While each of these separate courses is independent and complete in itself, each stands in most intimate and important relations to the other, and in no way can the student more easily and naturally acquire a clear, exact, practical and comprehensive knowledge of medical science, in its present advanced position, than by taking both these courses in connection.

### FACULTY.

THEODORE D. WOOLSEY, D. D., LL. D., *President.*

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C. A. LINDSLEY, M. D., *Secy.*

NEW HAVEN, CONN.



# MEDICAL COMMUNICATIONS.

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## ARTICLE I.

### "OUR ORGANIZATION."

#### ITS RELATIONS AND RESPONSIBILITIES.

Being the Annual Address delivered before the Convention, May 27th, 1868.

*By the President of the Society,*

CHARLES WOODWARD, M.D., OF MIDDLETOWN.

---

*Mr. President and Gentlemen, Members of the Medical Society :*

THE remarks that I am about to submit to this audience, I trust will possess one quality which you will duly appreciate, that is, brevity. And if I fail to interest and instruct, I hope not to severely tax your patience.

I shall offer a few remarks upon our *Organization*, the distinctive characteristics of its founders, the claims the community has upon it, and endeavor to offer a few suggestions with regard to its future improvement and advancement.

At the time this society was organized, the medical profession in this State was composed of men distinguished for possessing strong minds and practical views; they were close observers, self-made and self-reliant. They were not learned men; they read but little, for the obvious reason, there was but little to read. Few medical books had been imported, and none were written and published in this country for a long time after our revolutionary struggle had ceased; their libraries consisted of a few elementary works among which, and the most relied upon, was Motherby's Dictionary, a very elaborate work giving a description of every thing relating to the science of medicine in all its departments, and being copiously illustrated with plates, it was in fact a library in itself. Nothing can be in stronger contrast than the opportunities enjoyed by the founders of our organization, and the members of the profession at the present day. We are now literally

deluged with medical literature, much of which, we regret to say, is unreliable and not of a practical character. There appears to be a passion for authorship among those who are vain of their scholastic attainments, particularly among the younger members of the profession, who are ambitious to gain reputation, and perhaps inspired with a laudable desire to promote the science, which they would fain believe they are fully capable of doing. They, of all others, are the most inclined to dwell on what is *their* experience and the result of *their* observations, but as they advance in years, they become more and more distrustful of their knowledge, and like the great philosopher, become satisfied that they have only gathered a few pebbles on the beach without having sounded the depths of the sea of knowledge. Perhaps we shall be accused of heterodoxy, when we express the opinion, that there is a disposition to yield to the temptation to read too much. Investigation, we apprehend, will prove the fact that the greatest minds have not been possessed by the greatest readers.

It has been remarked by an eminent writer, F. W. Robison, that he never knew of but one or two fast readers and readers of many books, whose knowledge was worth anything. Mrs. Martineau says of herself, she is the slowest of readers, sometimes only a page in an hour, but then what she reads she makes her own; she further says, there are few girls of eighteen who have not read more than she has. Sir Erskine Perry remarks that Compté, one of the most profound thinkers in Europe, told him he had read an incredibly small number of books, and no reviews, but he further remarks, what Compté read lies fructifying and comes out a living tree, with leaves and fruit. Lord Bacon says there are some books which should be only tasted, others we should swallow down whole, and some choice ones we should masticate and digest. It has been remarked, we think with much truth, that multifarious reading weakens rather than improves the mind, and like the use of tobacco, becomes a habit, a species of dissipation, and unless what we read makes a strong and durable impression at the time, it is useless and unprofitable. It is an undeniable fact that the flood of medical literature with which the profession is deluged, is an evil, and to obtain from it reliable information, is like Roderick searching for a grain of wheat in two bushels of chaff; it is not worth the finding. It is easier to read than to think. In the earlier history of the profession in this State, owing to the sparse population, slow and tedious mode of conveyance, the time required

for physicians to go their professional rounds, allowed them but limited time for reading, but much time for thought, and thrown as they were upon their own mental resources, without the ability to refer to authority, they were governed by reason founded upon observation, which was eminently reliable. Why do we see at the present day, so many entering our profession, men endowed with powerful intellects, brilliant imaginations, prodigious memories, well versed in the classics, the arts and the theory of our profession, but who fail in the practical application of their knowledge? It is because they do not think; they are governed by authority and not by reason. The indisposition to mental effort gives rise to imposition. It is only necessary for some bold pretender to dogmatize with confidence and act with energy, and there will be multitudes of sluggards who are ready to commit their property, their lives and their souls even, to his control. The medical profession at the time our organization was formed, enjoyed outside the profession a high position. Their counsels were eagerly sought for, and they participated largely in the governmental affairs of the nation.

Politically speaking, they lived in a remarkable period of our country's history; they had for their compeers a set of strong minded, self-taught and self-reliant men,—men who had the moral courage and physical ability to defy the most powerful nation on earth, and successfully carry us through an unequal conflict, and establish a government which has been the wonder and admiration of the world, and which has vouchsafed to us the greatest amount of happiness and prosperity, which any nation was ever permitted to enjoy. Demagogues in politics, and empirics in medicine are of a later growth. Inured to hardship and vigorous exercise, as were those of both sexes, not effeminated by the use of elliptic springs, beds of down, lounges, velvet carpets and still more by the absurdities of fashion, they possessed stalwart forms and gave evidence of physical developments such as we are not permitted to observe among the Anglo-Saxon race of the present day; it was emphatically an age of *mind* and *muscle*. In practice they used but few and simple remedies, but they understood the powers and application of those remedies well. It is said none can wield the cimeter like the Tartar; it is his pastime in youth, and in after life in their national contests it is his main reliance. The indications they attempted to fulfill, were also few and simple, especially in acute diseases; the first inquiry at the bedside of the patient was,

is the type of the disease sthenic or asthenic? Does it require phlogistic or antiphlogistic treatment? If the former, diffusible stimulants, opium and tonics were resorted to. If the latter, the lancet, cathartics, and particularly antimony, were relied upon. Their theory was, bring the patient as near as practicable to the standard of health, and then rely upon the recuperative powers of nature to effect a cure. It is perhaps a question whether with the lights of modern science, we have materially improved upon their theory and the practice resulting from it. The instructions they received as pupils and imparted as teachers, were practical and clinical in character. The student, in the latter part of his pupilage, usually kept a horse and rode with his preceptor, which enabled him to witness practice accompanied with its ordinary routine of duties, and on that account had decided advantages over "walking the hospitals." An accurate knowledge of anatomy and physiology they could not obtain; they had no means of acquiring it; dissections, especially autopsies, were not tolerated by the community, but were looked upon as sacrilege. In 1787, there occurred in New York what was termed the "Doctors' mob." It was ascertained that in the lecture rooms of Drs. Bailey and Post dissections were practiced by their pupils. The populace broke into the building and destroyed its contents. Also as late as 1820, at this enlightened period, a similar mob occurred in the Barclay St. Medical College. At this period and under the circumstances, Pathology and Symptomatology were but imperfectly understood; for Lennae had not lived, and the microscope and chemistry had not lent their aid, or shed their flood of light upon this branch of science.

Society has claims upon its individual members, outside of their peculiar callings, especially upon professional men. Clergymen should have a supervision over the morals of community, besides giving instruction through their weekly discourses. The Lawyer should see that by proper enactments provisions are made for the protection of life and property. The Physician's first duty is to restore the diseased to health; it is also his province to see that such sanitary provisions are made as will tend to preserve health. Here is a wide field for usefulness. And to the physician community must mainly look for counsel and direction in all matters pertaining to public hygiene.

PHYSICAL CULTURE should particularly receive the attention of the members of this society, not only because it is immediately connected with the preservation of health, but because, as every

well informed physician knows, there is a close affinity between human mind and human matter; as a general rule, a full development of the former is connected with, or dependent upon, a full development of the latter; we say as a general rule; there are, however, marked exceptions,—we sometimes see feeble attenuated physical systems, like Voltaire, Randolph, Alexander H. Stevens and others, associated with transcendent intellects.

Formerly, great importance was attached to physical training, as having an important connection with the welfare of nations. It is said of the Roman Empire, that with the decay of their athletic games and severe training to which the soldiers and their youth were subjected, fell the empire of the Cæsars. Among the ancients, the state always provided for the physical training of its population. In fact, Plato, Aristotle, Cicero and others, considered a commonwealth defective when athletic games were neglected. The time we hope is not far distant, when the guardians of our youth will attach more importance to the base ball, skating, walking, rowing, calisthenics, and other gymnastic exercises which are partially in vogue, and less to overcramping the intellect.

Our climate is somewhat peculiar, and unquestionably less favorable to physical development, and in its effect, the nervous system, or vital organization, is more active; this, evidently, gives type to our diseases; nervous affections are more prevalent, and statistics go to show that a greater proportion of insanity is found here than in any other portion of the globe.

It is reported that in this country about one in 200 become insane, while in Spain there is not over one case of insanity in 80 hundred of its population.\* But not to climate alone, are to be

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\* *Insanity in Spain.*—Whatever may be the shortcomings of the Spaniard in other respects he is superior to the Yankee, the Briton, and the Gaul, in one—he is not apt to go crazy. Recent statistical tables show that while in London one person in every 200 is insane, and in Paris one in every 222, in Madrid only one in every 3,350 is in this unfortunate condition; and if we take the whole kingdom into account, the disproportion will appear much more striking, since in 1860, Spain with a population of 15,673,481, had but 2,334 lunatics, or one lunatic to every 6,566 sane inhabitants. The causes of this general exemption from insanity on the part of the Spaniards, are three: mental lethargy, absence of religious excitement, and temperance. In Spain the church takes care of the souls of the people; there is not energy enough to render speculation in business, philosophy, or ethics, dangerous; and even among the humblest classes, the vice of intoxication is unknown. But setting aside the last mentioned cause, we think that the comparative rarity of insanity in the Iberian Peninsula, may be ascribed to the prevalent stagnation of the Spanish mind.

attributed these changes in our organization. Our practices, habits and customs exert probably much greater influence, and it is this particularly which calls for the interference of the medical profession. We are convinced that the extent of the evil entailed upon us is beyond conception, not only in a sanitary, but also in a social and political point of view, by affecting directly the natural increase of population. The most prominent of these evils is connected with *Female training and education*. We are aware that as far as any thing relating to this subject is concerned, to undertake to combat prevailing public opinion, to advocate sanitary rules founded on true physiological principles, if it contravene *fashion*, would be like trying to regulate or resist the ebb and flow of the ocean's tides. There is evidently going on, in our female seminaries, and generally among the wealthier classes, a struggle between higher civilization and wild nature's vigor. The close observer, we apprehend, will have but little difficulty in deciding which will ultimately prevail.

The physical organization of the female portion of our population is becoming more and more feeble. It is humiliating to be compelled to bear testimony to the truth of what intelligent foreign travelers say of us, when they express their astonishment at the physical appearance of our female population. Hepworth Dixon remarked that "American women were neither flesh nor muscle, but all nerves, and not fit to be wives and mothers."

At our fashionable female seminaries, it is not uncommon for a young lady to have a daily course of ten or twelve studies, from simple arithmetic to the abstract sciences, and all the exercise they get is to walk the streets at stated hours attended by their teachers to see that they *conduct with propriety*. If they would go into the fields and witness the gambols and frolics of the lambs and colts and imitate them, it would do more incidentally for their intellectual development than half the time they spend in crowded and ill-ventilated apartments, cramming, rather than improving their minds. Generally speaking, our female seminaries are nurseries for spinsters, for *they totally unfit their pupils for the marriage relation*—they ignore the views entertained by Dr. Johnson, that a man is much better pleased when he has a good dinner on the table, than when he has a wife who knows Greek. Statistics furnished by the registration of births, show that there are 50 per cent. more births among our foreign population in proportion to their numbers, than among our Anglo-Saxon race. Indeed, fears

are entertained and often expressed, that the Anglo Saxon will in this country eventually disappear to give place to the Teutonic and Celtic. The causes of this are entitled to profound consideration. Why is it that births are so much less frequent now than formerly. Formerly the average number of children was six to eight in a family, now it is less than one-half the number. Dr. Storer of Boston has written an able work, and the Rev. Doctors Todd and Bacon, elaborate essays, to prove that it is owing to the prevalence of a specific vice. We are aware this vice prevails to a lamentable extent, but as for its being sufficient to account for the facts above stated, it is but a drop in the bucket, and the imputation, to a great extent, is an undeserved stigma upon society. In all countries and all ages, certain causes have prevailed which are favorable or unfavorable to human increase. One fact must be considered as established; it is that the number of births is very much greater among the laboring classes, than among those who live in affluence and idleness. In no portion of the globe probably, was human increase so great and so rapid as among the slaves on our southern plantations. Dr. Allen of Lowell, in an able article, quotes the following:

Hippocrates says: "The want of fruitfulness arises from sedentary life, indulgence in riding in carriages, want of exercise, profuseness in living, fatness, and muscular laxness or weakness in the female sex."

Aristotle and Lord Bacon, though not strictly medical men, were remarkable for their knowledge of human nature. Says the former, "The condition most favorable to procreation is a habit of body inured to labor." Says the latter: "Repletion is an enemy to generation."

Dr. Short states that "the poorest and most laborious part of mankind are the fruitfulest," and "the most voluptuous, idle, effeminate and luxurious are the barrenest."

Dr. Buchan says: "Would the rich use the same sort of food and exercise as the better sort of peasants, they would seldom have cause to envy their poor vassals and dependents the blessing of a numerous and healthy offspring. The cause of this comparative barrenness among the wealthy is, affluence begets indolence, which not only vitiates the humors, but induces a relaxation of the solids—a state highly unfavorable to procreation."

Dr. Black says: "High refinement is an obstacle to propagation." Dean Swift remarks with reference to the Irish: "Low diet and moderate exercise are the great restorers of the breed." Alison, the historian, states that "the rate of increase of population is slowest in the most opulent classes." Testimonials similar to these, in great numbers, could be obtained from works on medicine and

history, had we time and room for such references. A great amount of evidence confirmatory of the views here presented, might be gathered from general history, where changes of population with their causes are delineated, also from the history of particular tribes and classes of people, as well as from the genealogical records of individual families through several generations.

This subject should be considered and investigated by the medical profession. If there is a popular error prevailing, on the profession devolves the duty of correcting it. It is a subject worthy of the consideration of the profession whether we should endeavor to have Hygiene, and what may be termed the philosophy of health, taught as a distinct branch in our higher seminaries of learning.

It is with high gratification we learn that one of the noblest members of our noble profession, has recently endowed a lectureship on Hygiene in one of the seminaries in the city of New York, and he himself delivered the first course. I refer to Dr. Willard Parker.

We have now to consider what changes can be made in the plan of our organization, and what changes in our proceedings, to render our meetings more attractive and beneficial. A great deal of thought has been already bestowed on this subject by its members, and various committees have had the subject under consideration, but no changes have been effected. Permit me to urge this subject earnestly upon your consideration; the time has arrived when it is evident that something must be done or we lose caste. The reports carried back by delegates who visit us as representatives from other societies, we regret to learn, are not in all cases very creditable to us. In comparison with other societies, we are considered as behind the age. This is looked upon as an age of progress, but we fail to discover in our organization any change, much less any improvement, since its first formation 70 years ago; but we rather stand as a monument to point out to the traveler what improvements have been made in medical associations elsewhere.

No profession derives so much advantage from the assembling of its members under some form of organization, where knowledge derived from the observation of its members can be received and imparted, as in ours. He who goes his solitary rounds from one scene of distress to another, day after day, without the blessings and relief afforded by one day in seven being appropriated as a day of rest, feels the necessity of the recreation and comfort which



our social and professional meetings alone can furnish. Long continued and constant tension destroys elasticity; this law of forces is as applicable to mind as to matter. From these social gatherings we return to our professional duties with new life and renewed energy.

At the period when our society was organized, the only conveyance the physician could avail himself of, was on horseback; they were necessitated to have their primary organizations by counties, and a state convention made up of delegates from these several county societies. The time and expense these delegates were subjected to, was more than they could well afford, and in order to secure a full attendance it was necessary that their expenses should be defrayed by a debenture to be provided for by a tax on the members. We are now differently situated; steam and machinery have taken the place of bone and muscle; it is easier for those living in the extreme parts of the state, indeed for two-thirds of the members, to meet at our capitals than at our shire towns. It is a subject worthy of your consideration, whether there is in their operation any incompatibility existing between our county and state organizations. Is it practicable to keep up an interest in both? All will agree that our state society should have a preference. The meeting of the members from all parts of the State and members from other States, renders it a broader field, and if all the members were permitted to meet and participate in its proceedings, it would evidently do much more to further the objects for which medical associations are formed. Meet we must and meet we will, and if our county meetings were dispensed with, the inducements would be much greater to attend our State conventions.

Our knowledge of diseases and their appropriate remedies, is derived from the accumulated results of observation. A knowledge of the pathology of a disease, does not of itself lead to the discovery of the remedy, for this is often the result of pure accident. For instance, no improvement has been made, nothing has been added to the discovery which the savage arrived at, though volumes have been written on the pathology of intermittent fever, and the therapeutic action of cinchona,—it all resolves itself at last into the conclusion that the Indian arrived at, which was, that *bark cures fever and ague*.

Ages ago the Arabic Khazes described the small pox and the pathology of the disease as accurately as it is now described, but

no deduction from this pathological knowledge led to the discovery of its preventive or cure; but a country milk maid living in a district where the disease prevailed, observed that from the udder of a cow a pustule was produced on the hand, which secured immunity from the disease; nor does a knowledge of pathological anatomy furnish any information on the subject to help us in coming to a conclusion; but it all resolves itself in the conclusion which the immortal Jenner, after innumerable experiments, arrived at, namely, that *vaccination prevents small pox*.

Now from what source is our knowledge of the application of remedies to control diseased action derived? It is from the concentrated observations of the individual members of the profession. We are all aware, that one or a limited number of cases establishes no principles which are reliable. It was the relation of solitary cases, which led Dr. Cullen to remark, that there are more false facts than false theories given out to the world. Positive results are what we should aim at, and how these are to be obtained, is a question of great significance. Medical statistics or the adoption of what is termed the *numerical method*, is without doubt the most reliable and the safest guide in adopting modes of treatment.

The first ray of light which science shed upon the healing art (and to this period it was but an art), was through the numerical method. After the aid of sorcery, incantations, necromancy, psalmistry and astrology had been invoked without success, at last a mode was adopted by the Greeks, which established premises on which medicine as a science was founded. It was by having a description of cases as they occurred, written out on parchment, with the treatment adopted, which was deposited in the temples of Æsculapius, and to these temples in the various sections of Greece, the pupils resorted to obtain a knowledge of the art of healing. These collections of facts, imperfect as they were, enabled Hippocrates, Celsus, Aurelius, and other learned men of Greece, to found a system of practical medicine upon scientific principles. Hippocrates more especially, has the credit of being the father of physic as a science. Isolated facts can only be regarded as suggestions which furnish materials for the formation of theories, but conclusions to be reliable should be the result of a multiplication of facts. It is well remarked that there are no absolute certainties out of the pale of mathematics. The senses are fallible instruments, and more or less imperfect. How does the astronomer arrive at his conclusions with regard to the position of an object, or the re-

lation of one object with another? He takes a number of observations with his imperfect instrument, perhaps no two agree, but he takes the mean of all his observations, and adopts it as the nearest approach to the number required. Now let the physician take the same method by bringing together the results of a number of trials of certain remedies in a certain number of cases of diseases. Let these be reported, and from these reports, the most reliable conclusions would be arrived at. If the uncertainty which environs the healing art is to any considerable degree to be overcome, it must be by a resort to mathematical deductions.

The registry of births and deaths in a sanitary point of view, is useful and establishes many important facts, but does not materially advance medical science. For this purpose a registry of cases with the treatment adopted, is required. Every practitioner, especially the younger members of the profession, is inexcusable if he takes no notes and keeps no record of his cases and the treatment adopted in each. The elder members of the profession, we feel assured, will unanimously endorse this suggestion. His notes he will find of inestimable value for reference. Then let it be incumbent upon every member, as far as practicable, to present to the convention an abstract of his minutes to be referred to a committee, by them to be used as the parchments in the Grecian temples were used by Hippocrates; the facts adduced to be collected, classified, and spread before the public in our annual publication. We are aware this would impose upon such committee a great amount of labor, but it should be compensated labor. We believe it would be a very beneficial appropriation of our funds.

We cannot, consistently with our convictions of duty, close these desultory remarks, without calling the attention of this society to the claims which *our* Medical School has upon us. We say *our* school, for it is our offspring; it commenced its existence under our auspices, and a great deal of responsibility, if it is suffered to languish and decline, rests upon us. For success it must mainly rely upon its teachers, but much can be done by this society, individually and collectively, to sustain the teachers in their efforts. To their fidelity and ability those of us who have had an opportunity to know, will most cheerfully testify. I agree entirely with my predecessors, that the examination of the pupils for graduation give evidence of a high order of instruction. The public, we apprehend, are not sufficiently informed with regard to its merits. Modesty is commendable in itself, but it is not strictly the order

of the day, and perhaps in comparison with other institutions of no greater merit, it suffers from the over exercise of this virtue by its teachers. We should not be sparing in our efforts to sustain them in their endeavors to increase the facilities for instruction, and to advance the standard of medical education.

There is a provision in the law establishing the Medical College, we think unjust; it is at least uncalled for; that is, one student from each county shall be entitled to a course of lectures gratuitously. We are somewhat familiar with the origin of this provision in the charter; if there was ever a necessity for it, that necessity no longer exists. It is an onerous tax upon the professors, and of no benefit to the profession or the community. We would suggest that this convention look into the subject, and decide upon the propriety of its repeal.

At all meetings of the members of medical organizations, the propriety of insisting upon a higher degree of preparatory qualifications of medical students, almost uniformly comes up for discussion. It would do much to elevate the character of the profession, if certain qualifications were required of every student before attending a course of medical lectures. A majority of the subjects which compose a collegiate course, are so foreign to the science of medicine, that a different preparatory course seems desirable; but it should be uniform and the result of the concerted action of the several schools. Many of those who have reached the highest pinnacle of fame in our profession in all countries, have never graduated at any college.

The Rev. H. W. Beecher, whose practical knowledge of human nature is excelled by none, says (in Norwood), "College learning is very much like snow, the more a man has of it, the less the soil produces. It is not till practical life melts it away that the ground yields anything. Men get over it quicker in some kinds of business than in others. The college sticks longest on ministers and schoolmasters, next to lawyers, *not much to doctors*, and none at all to merchants and gentlemen."

It is conceded on all hands that ours is a difficult profession. As a science it is difficult to learn. In its practice we have many difficulties to encounter and obstacles to overcome. Charlatanism, like a hydra-head monster, is ever appearing athwart our course, exerting its baneful influence to destroy confidence in our system. We had occasion to remark that empiricism in medicine was of recent origin. We refer to that which is of a mercenary character.

That which is resorted to, to enable the false pretender to erect his palatial mansions, and sustain a liveried equipage. Credulity has ever been an essential ingredient in the human composition. Mystery has ever had its peculiar charms. It is humiliating to be compelled to acknowledge, that in this enlightened age its hold upon the human intellect is as tenacious as at any former period.

We can readily conceive the difficulty the community has of judging correctly of the abilities and skill of the physician. The lawyer argues for fame, or the reward of victory; he is met by his opposer; we are sufficiently acquainted with the subject matter they are discussing, to be able to judge with a degree of accuracy of their relative abilities and professional knowledge. The Clergyman reasons and argues upon subjects with which he makes us sufficiently familiar to enable us to judge of his learning and reasoning powers.

The physician prescribes; he directs without arguing or being argued with; what he prescribes and why, the attendant or patient is not expected to inquire.

There are many highly educated, talented men who occupy high positions in our legislative halls, on the bench, at the bar and in the sacred desks, who would scoff at the suggestion that witchcraft, spiritualism, Buddhism or Mormonism can be true, but have full faith that a medium can successfully prescribe for a patient a thousand miles distant by examining a lock of his hair; or that a decillionth of a grain or drop of an ordinary medicine will overpower the gravest maladies flesh is heir to. The question now arises, what shall we individually or as an association do in this matter. Shall we endeavor to write or argue down empiricism, with a view of disabusing the public mind on this subject? We say no. Montesque remarked "that there is in every nation or community, a public opinion on which power itself is founded; whatever shocks that opinion weakens itself, and necessarily loses its influence. Whenever the vanity or interests of rulers tempts them to do acts which are in opposition to public opinion, it always ends in their final discomfiture and downfall." The same may be said of errors in theories and doctrines; they almost invariably die out. Not because they are refuted, but because they are neglected. No system has yet, or ever can, stand the ordeal of public opinion, but the allopathic system as it is called, because it is founded on true physiological and pathological principles. Let its followers observe toward other systems in vogue, a "masterly inactivity" and

they will die of inanition. Dr. Johnson says, "no man was ever written down except by himself." He proved the truth of this noble and excellent rule in his own case, by never replying to the critics who assailed him. The empirical systems in vogue, can never stand the test of trial and investigation; take the systems of Thompson and Hahnemann, they are already in the stage of collapse; neither are followed, although the names are retained; the practice of the followers has become merged in allopathy.

There is a sentiment prevailing among the members of our profession, that as a profession it is not duly appreciated, and for our services we are not properly remunerated. This may be true to a certain extent, but who has the affections of the community about him to a greater extent than the "beloved physician." When stricken down by sickness, whose premises are invaded by more anxious inquirers, or has more earnest prayers put up for his recovery? He is their friend and counsellor in all matters, and in families where he attends, he is identified as one of their members; he is the depository of their secrets; he enters their dwellings unannounced, and leaves it without formality; from this source, to a great extent, he feels remunerated for his anxious toil.

No one should enter the profession under the expectation of having a long rent roll, or a large file of certificates of bonds and stocks; if he does he is doomed to disappointment. We should be governed by higher motives and nobler purposes; we should feel that we have entered a field where there is an opportunity of practically carrying out the precepts, and following the example of the "great Physician," and inasmuch as we have lodged the stranger, given food and drink to the famishing, and visited the sick for the work's sake, we have followed his example and served him. For the poor we have with us always. The calls of the sick and needy for the physician's charities are inexorable.

Though gold and silver we have not, if we have been faithful to our calling, may we not hope that we have laid up treasures where moth and rust do not corrupt, and thieves do not break through and steal.

## ARTICLE II.

# THE RELATION OF THEORY TO PRACTICE.

Being the Annual Dissertation read before the Convention, May 27, 1863.

BY H. A. CARRINGTON M.D., OF NEW HAVEN.

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From immemorial time it has been customary in medical schools, to give instruction to the pupils gathering there, in the Theory and Practice of Medicine; furnishing by such honored custom, a sufficient testimony to the value which the profession has placed upon that branch of the curriculum; and a confession to the utility and necessity of a union of the two; and though most of you long since bade adieu to the elementary tuition of the schools, and have been contending with the emergencies of a busy practical life, I hope you will not think it altogether ill-timed, if I invite your attention to some very desultory remarks upon the Relation of Theory to Practice.

To the earnest student of our profession who desires to know not merely what fruits the present age is bearing, but, moved by a laudable curiosity, would seek out and trace back the devious paths by which the past has advanced to the present, rounding out his knowledge into something like completeness, to such an one I think there are very few themes, whether we regard their practical or philosophical bearing, of more interest or that promise a more abundant recompense to the laborer, than the present subject.

The study, in its historical relations only, would furnish one of the most interesting and instructive chapters in the whole history of medicine; and an attempt to develop our subject in any direction, with much regard to completeness, would carry us far beyond all reasonable limits for an occasion like the present; you will understand, therefore, that I only propose to touch here and there upon the periphery of my theme, and with but slight regard to logical order or consecutive thinking.

To speak of theory in any but terms of reprobation, does not fail to excite in the minds of many, a spirit of derision; this is usually the temper of those who pride themselves upon being especially

practical; and who, in their misjudging scorn, despise all attempts to place our science upon a basis of broad or general laws, who, traveling in the narrow round of daily duties, are ignobly content therewith, seem to desire no larger view, and have no sympathy with those who not so contented, are striving to reach an eminence which shall enable them to take a wide and commanding outlook over all these petty details and minute facts, and so be able to range them in a comprehensive order and system. But however ready some may be to sneer, I cannot withhold the avowal of my belief that our profession owes very much to those men who have striven to apprehend the facts of practical medicine and express their real value, and thus give a philosophical or scientific character to what is otherwise but a heterogeneous collection of observation, alike destitute of order or significance. Doubtless, complete success has never yet crowned their labors, and doubtless, also, they have often gone widely astray, and caused others to follow them into the same paths of error, as we shall have occasion to see by and by. But since history does establish this one conclusion at least, that error is a constant, perhaps necessary, result of man's efforts to reach the truth, and that truth is gained after many essays, and through many trials, we must accept all these defeats as so many unavoidable preliminary steps toward the final goal of triumph.

Some are content to call their profession only an art, and profess to expect nothing better for the future; but with such limitations and boundaries I cannot believe that all are willing to rest. I do not ignore the large conjectural element which does, and for a long time to come must, exist in all medical researches, and which while existing forbids us to place medicine among the exact sciences, but there is yet a hope which I am not willing to repress, that the future will witness such a glorious advance in the various branches of our professional knowledge, such increase in the means of diagnosis and such exactness in their use, such extended and reliable knowledge of our therapeutical resources, such perfectness in the physiology of health and its deviations, that medicine shall rank much more nearly with those sciences we call exact, than the performances of its disciples in the past would encourage us to believe possible; and I venture to think that this end will be quite materially served by the theorists, thus entitling them to the very front rank as practical men.



That we may not beat the air in aimless or uncertain discussions, let us seek for clear and definite ideas of our subject, and endeavor to define its limits and terms. The abuse of words has been of old a standing cause for complaint, and we may renew it here, for much of the opprobrium that attaches to the word "theory" comes, I apprehend, from an inexact use or misapplication of terms.

To begin our definition by a negation ; the term theory, in strictness, ought not to be applied, as it often is, to the wild and visionary figments of the untamed imagination, the baseless dreams of an ignorant pretender, nor the hap-hazard guesses of any one. The most lawless expressions of fancy, the wildest speculations, have been judged and classed as of no less value, and of the same rank as the most thoroughly weighed and matured opinions ;—opinions based on careful and extended analysis of facts, and a large induction from many instances.

A theory indicates the relation of facts among themselves ; it marks their order and succession. A system in medicine is a general theory of the laws and mechanism of life by means of which we endeavor to reduce to a small number of principles, sometimes even to one alone, all the phenomena of health and disease.

Theory, says Claude Bernard, is the scientific idea controlled by experience. *Mere* experience is valueless ; and just here is the true difference between the scientific physician and the "old women of either sex ;" they bring their remedies that have cured this one and that one of the same disease and "must cure you, so just try it, and never mind what the doctor says ;" they bring nothing but a blind unreasoning experience, gathered here and there ; an experience, because unreasoning and unenlightened, very much more apt to be false than true. But at the root even of their practice there lies an unconscious theory that the blood needs cleansing, that the stomach is foul, that the liver is sluggish, that the "humors," whatever they may be, are disordered. But just in proportion as experience is reacted upon by enlightened and scientific judgment and the observation of individual facts passed under review, in just such proportion does it become of value not only to the person himself, but through him to others ; it is such experience that has contributed to build up the body of scientific knowledge from which the profession is every day drawing supplies.

By a theory then, I understand an orderly arrangement of facts, according to their bearing on some real or hypothetical law ; and theories are efficient for good, so far as they are constructed with

such an end in view; and in such a light I can see no just cause for condemning, as many do, theories or those who originated them; on the other hand, I think that some of the finest discoveries of modern medicine, have had their origin in theoretical views.

I had intended, and, had time and opportunity been favorable, should have been glad to have sketched at a moderate length, one or two of the more celebrated theories that have prevailed in medicine, and to have traced out the influence they have exerted for good or evil, over the practical part of our science; but have been obliged to put by such purpose, and must content myself with only a few and somewhat random suggestions of the evils and benefits that may and do grow out of what may be called theoretical medicine, illustrated by very brief references to the past.

And first, as to the evils; doubtless they have been plain and abundant.

We may all have seen or known some man of large acquirements, of no mean intellectual endowments, if not possessing actual genius, who, meditating upon the mysteries of his professional experience, has sought to organize all the facts and explain what of mystery hangs about them, by certain theories; and who having once formed these, could never by any effort of mental vision see any fact that militated against them. It is told of Stephenson, that when some one objected to his rail-road engine, that a cow might get on the track, and what then? the imperturable inventor replied, "it will be so much the worse for the cow." And in their confidence at least these theorists are not unlike Stephenson; if facts get in the way of their theories, so much the worse, they seem to think, for the facts, and they go on as calmly as though the track had been entirely clear. And just here is the great cause of all the evils that arise from theories; that instead of being regarded as provisional and temporary, merely as scaffolding to the edifice of scientific truth, and to be removed when that building shall have been completed, the pride of paternity has been aroused, and they have been sustained against an overwhelming flood of opposing facts, as finalities; and oftentimes by sheer dint of obstinate endorsement have come to pass current as verities beyond question.

The greatest curse that has happened to the medical profession has been its bondage to authority, its willing and ignominious subjection to those who by talent and position, have gained a leadership among their fellows. It is, perhaps, natural enough, but not the less lamentable, that men take up the yoke of servitude so

readily, and surrender their right to see as well as think. Look for instance at the injury such an ascendancy as that Galen obtained, inflicted on the profession. For twelve hundred years he maintained his supremacy almost without a question; nor need we go so far back to find examples: Boerhave, Cullen, Brown and many others have in their turns been the leaders of a sect, and so far successful in imposing bonds upon the minds of their followers. To-day, one of the most hopeful signs for good which we can discover in the medical world is this, that physicians are looking less for leaders, placing less reliance upon the systems of others, and are seeking more narrowly for the truth, questioning nature everywhere to find out what she has to say.

We shall find, in slight review of the systems of John Brown, a full illustration of the evils which may grow out of a theory which seeks to bend every fact to accommodate the theory, or else coolly ignores them; I refer to this system the more willingly, because it seems to be again reviving in a certain modified form. The Brunonian system may be stated in the concise words of its author, to wit:—"Excitement, the effect of the exciting powers, when of the proper degree, constitutes health; when either excessive or deficient, it proves the occasion of disease, or predisposition previous to the formation of disease."—*Elements of Medicine*, p. 111. A very simple and compendious system of medicine, truly! Every form of disease, every disorder of function becomes simply and only a question of more or less; and it was only natural that the system of therapeutics growing up out of such a theory should be quite as simple and compendious, since it is only demanded to increase or diminish insufficient or superabundant excitement, and as we shall see, it is mainly to increase; brandy and not the lancet being his chiefly. His classification of diseases, under the guidance of such a theory is, as one might suppose, unique. Thus, among diseases of direct debility, he classes apoplexy, palsy, plague, malignant fever, confluent small pox, hydrothorax, contagious dysentery, &c.; for these diseases "the indication of cure is to support the excitement. The remedies are powerful stimuli, as electricity, opium, ether, spirituous liquors," &c. The diseases of the sthenic diathesis, are synocha, measles, pleuritis, peripneumonia, mild small pox, dysentery, chicken pox, catarrh, scarlet pyrexia, &c. The causes of disease of both classes, are excessive action of powerful stimuli; as heat, exercise, food, abundance of blood, violent passions of the mind, contagion, &c. The diseases of the sthenic diathesis are to be treated by di-

minishing the excitement, by the employment of slight or defective stimuli, as lying cool in bed, tranquility of mind, bleeding, &c. The diseases of the asthenic diathesis, or direct debility, are intermittent fevers, hysteria, colic, epistaxis, dyspepsia, menorrhæa, amenorrhæa, scrofula, chorea, gout, dropsy, tetanus, jaundice, &c. The causes here are deficiency of stimuli necessary to the maintenance of good health, or defective stimuli alone. The indication of cure is, to increase the excitement; the remedies are powerful stimuli, such as are exhibited for the cure of indirect debility, only beginning with small doses, increasing gradually.

Thus, as you see, the most opposite and diverse diseases are all to be treated by the same remedies. Doubtless it is a very convenient system which will enable one to treat apoplexy, palsy, phthisis, confluent small pox, hydrothorax, intermittent fever, hysteria, rheumatism, epilepsy, scrofula, gout and tetanus all on the same general principles, and that is what the theory of Brown led directly to and culminated in. It is not necessary to spend our time in any refutation of that theory; it is a sufficient refutation to state it. Let me therefore quote once more: "It has been demonstrated," says Brown, "that there are only two forms of diseases; that the deviation from the state of health, in which the morbid state consists, is \* \* \* \* not anything that any person has yet (that is anterior to Brown) thought respecting the cause and nature of the morbid state. On the contrary, it has been proved that health and disease are the same state depending on the same cause, that is, excitement, varying only in degree; \* \* \* \* and that the whole and sole province of a physician is not to look for the morbid states and remedies which have no existence, but to consider the deviation of excitement from the health standard, in order to remove it by the proper means. "The reasoning part of this doctrine," he adds, "it is expected the reader will find irreprehensible and unanswerable; and the practical parts, from the astonishing cures that have upon innumerable occasions been effected, will ever stand in support of the truth and utility, as well as simplicity of the whole.—*Elements of Medicine*, p. 160.

The Brunonian system may have been serviceable in directing attention to the fact that many diseases would bear a more stimulating plan of treatment than had been in vogue; but we can hardly explain it, as the modern advocates for stimulation do, by raising up the change of type theory. In those days at least there was no change of type suggested to explain the treat-

ment. Under Brown's theory 97 per cent. of the cases of disease required stimulant treatment, and 3 per cent. only depressing medication. A curious instance of the mutation a theory may undergo, is furnished by the history of this theory in its travels into Italy and France. Rasori divides diseases into two classes, excess or want of excitation; but he reversed the proportions, and exalted antiphlogistics and sedatives into the front rank of remedies. In France, substituting irritability for excitement, and christening the dogma as the physiological method, the great means of cure is blood-letting. Broussais did indeed profess to be an opponent of the Brunonian system; but the cardinal idea of his system is that of irritability, and almost every morbid phenomena with him was an indication of inflammation, and inflammation was only a high degree of the irritation or stimulation, which in its proper degree was a necessary condition of life. That the men who practice on any such exclusive theories must be guilty of very much mal-practice, will not require any demonstration here, I presume.

Another illustration of the evils and dangers to which theoretical minds are exposed, which I will simply cite, is furnished in the rise and spread of the homeopathic system; the author of which was very likely at first the dupe of his own fancy, however greatly he may have become the apostle of knavery in later life. The twin dogmas of *similia similibus curanter* and the *dynamization of medicine* by infinitesimal division are fit to stand as full length illustrations of theory run mad.

An allusion to one other class of evils growing out of theories and theoretical terms, is all that I make. Of the many theories that have been broached, to a greater or less extent, they have left their residue in the form of phrases and terms; as for instance, tonics, alteratives, astringents, febrifuges, coction, zymosis, inflammation, &c. Now many times such terms unconsciously influence practice; and we find ourselves prescribing for names of things which never had existence except in the brain of some fantastic genius; but which once emitted and fastened in the language of science, cannot be sloughed off; and the average practitioner who prides himself upon being intensely practical, very much more than he is aware of, uses his remedies according to the classification of theorists, and for conditions expressed by theoretical names, which we have very good reason to believe do not in the slightest degree describe the actual state.

To pass from these generalities, let us illustrate the application of theory to the practice of medicine by one or two instances.

The first that comes to hand is that universal scourge of the race, Phthisis; and I take this because the symptoms are clear and well defined; because the disease is so universal and has existed from the earliest period of recorded medicine, and therefore every one may have observed its course, speculated on its cause, and had abundant opportunities to test his therapeutical resources on its unfortunate victims; so that one might suppose that if any uniformity of view or similarity of treatment were possible to attain in this disease at least, there should have been little or no room for doubt or mistake. We find, however, on a review of the theories of cause and methods of cure, the latter has varied as one or the other of the former have prevailed. In certain respects the descriptions Hippocrates gave of the symptoms and course of the disease, stand to-day unrivaled for clearness and precision; and in some respects, too, his prescriptions are similar to those that the highest medical wisdom of to-day enforces; but between him and the present there has been every variety of opinion of the cause, nature and treatment. Hippocrates affirmed that the expectoration in phthisis arose from ulcerations of the lungs, and in his theory he seems to have regarded it as only a local disease. His treatment was mainly dietetic and hygienic; making free use of milk—mares, asses, goats or cows; meat, fat fish, and other fats, walking exercise for many miles daily, and the avoidance of atmospheric or thermal changes; but, less rational, he also advises caustics, emetics and purgatives.

These and similar views prevailed for many centuries, and little was added to the actual knowledge of the disease. The modern methods have been legion. Some have bled, others forbidden the lancet with the utmost strictness; some have given emetics; some, tonics; some, digitalis; some, iron; some, milk; some, tar water; some, oxygen gas; others have held that there was too much oxygen in the system already, and that carbonic acid was the proper thing to take; some have recommended blisters, caustics, and even the actual canterbury, imagining, doubtless, that such a severe disease needed heroic measures of cure; some have sent their patients on sea voyages; some have sent them to herd with the cows; now a mild climate, and now a cold one must be tried, and myriads of tomb-stones proclaim alike the futility of one and the other; some have found in whisky the great specific; and who has not given cod liver oil? Now it is necessary to supply the phosphates if we would see our patients restored to health; at one time the fashion

is chlorine, then iodine, and again sulphur; but I might go on almost ad infinitum to rehearse means and methods that have been adopted according to the prevailing theory; according as the disease has been regarded as local or constitutional; as due to particular or general causes; to debility or inflammation; as hereditary or spontaneous; as owing to climate or civilization; as caused by hæmoptysis, or the reverse; but the summary already given will doubtless be enough for your patience as it is for my purpose. The last new theory of the zymotic nature of Phthisis has not as yet made any excursions into the practical, and I believe it yet remains without a therapeutical application, though we may easily see how important it will be, in that direction, *if true*. In the history of this disease and its treatment, we find plain and abundant proof of the fact that, as narrow or erroneous theoretical views have prevailed, the therapeutical means have been inadequate or injurious; and as the profession has come to understand better its nature, and approximate its theories to the truth, the disease has been less, and therefore more correctly treated. And the great aim has been more to obviate the causes and to supplant the tendency to death, by restoring as far as possible the proper hygienic condition.

Fever, another of the common diseases, will furnish us with one more illustration of our theme. I speak of fever in the generic sense, without regard to the distinctions of our modern schools into various species, for the principle I seek to illustrate is not affected by the recent classification.

And here again we must remark at the outset, how the sagacity and genius of Hippocrates anticipated not only modern theories but modern discoveries; for his theory of coction and crisis anticipated, if it did not originate, the zymotic notion and the self-limitation of diseases. Without pausing to enumerate theories or methods of cure, I may briefly sum them all up in a few words. According to the belief which has prevailed, whether the disease was an effort of the system to throw off a morbid poison, and one in which art could not accomplish more than to sustain the system during this contest; or whether it has been held that the offending substance could and should be sought out and expelled from the body, taking the entire business out of the hands of nature as completely as the other school trusted it to her;—according to one or the other of these modes of thinking and reasoning have physicians acted; hoping on the one hand to extinguish the morbid agent by their activity in emptying the blood vessels, or the bowels, or to

drive it out by the pores of the skin; by depressing the exalted activity of the bodily functions in every possible way, by starvation, by depressants as digitalis, antimony, emetics and purgatives, striving by all the resources of art to exorcise the offending substance;—or, on the other hand, seeing how poor a chance the patient stood for recovery from this vigorous and energetic pursuit of the disease; others have thought the patient should be supported and sustained, and accordingly they have given him a staff in the shape of stimulants to lean on until the materies morbi should be expelled by the efforts of nature contending lustily against the intruder; a staff of which, by the way, we may say, that it sometimes seems more of a *load* than a support;—and finally, others, remembering the fable of the famous shield, have thought that somewhere between these contending hosts the truth was more likely to be found, have deemed it best rather to watch the course of the disease, and acting upon no absolute theory, have not given him alcohol upon suspicion that he might need it, nor depleted him because he might be too much excited by and by; but have interfered only to alleviate his hours of distress, and act as it were as a mediator, rendering aid only as demanded by existing emergencies, and not seeking to forestall a condition that might never appear.

And thus we are led to repeat the remark already made, when speaking of Phthisis, that as theories have been improved and have come to be more in conformity with the nature of the disease, treatment has been less violent and disturbing, confidence in curative measures lessened, and increased confidence in the observance of hygienic conditions. You may say to me, that I am substituting results for causes. I am not, however, unmindful of the difficulty in medical inquiries of separating and defining the limits of one or the other; but yet, after a somewhat extended review of the literature of the subject, I am satisfied that correct theories do bear an appreciable and beneficial relation to practical medicine, and that much bad practice is due to false reasoning and incorrect theories.

We are apt to imagine that the theories of this present age are new, and our methods original; but as one passes in review the history of what others have thought and done even in the far distant past, this conceit will disappear, and Solomon's assertion that there is nothing new under the sun will come home with increased force and power. Almost if not quite every vagary of modern



times has its antecedent vagary in the past. The blood-letting controversy which has raged with such vehemence in some quarters, began back in a remote antiquity, though it was not till recently that men learned to invent the change-of-type theory; that I believe is modern.

In conclusion, it remains for us only to endeavor to define the true sphere of theory, and attempt an estimate of the benefits that may be expected to flow from a proper use of the same.

Says Locke: "Hypotheses, if they are well made, are at least great helps to memory, and often direct us to new discoveries. But we should not take them up too hastily (which the mind that would always penetrate into the causes of things, and have principles to rest on, is very apt to do) till we have very well examined particulars, and made several experiments in that thing which we would explain by one hypothesis, and see whether it will agree with them all; whether our principles will carry us quite through, and not be as inconsistent with one phenomena of nature as they seem to accommodate and explain another; and, at least, that we take care that the name of principles deceive us not, nor impose on us, by making us receive that for an unquestionable truth which is really at best but a very doubtful conjecture."—*Lewes' History of Philosophy*, Vol. I, p. 243.

These words form an epitome of the whole subject; and little more remains for me than simply to reiterate the points he has already made. I claim, in the first place, that to form a theory of any phenomena is the first step to obtaining a true practical knowledge of the phenomena. One may observe certain facts many times; but he gives himself no concern about them any more than the dumb cattle that see but inquire not, and consequently he learns nothing; experience is of no value to him, repetition does not serve any good purpose; for he knows nothing more for an hundred opportunities than for one,—the ninety and nine teach him nothing that the first one did not. The nations have not obtained a knowledge of astronomy by simply looking up to the stars; to make progress in such a science it is necessary to add reason to observation. It is because theory, in a just appreciation of it, demands the exercise of the reason,—demands comparative observation,—demands that we either institute experiments ourselves, or carefully watch those which nature performs for us,—demands that we look before and behind and on either hand, taking up with careful scrutiny the individual facts not less than the classes;—it is because to theo-

rize correctly and fruitfully requires such things, that I would seek to defend it from unmerited reproach. The practical man must ignore all this, and hence it is that experience is worth so little to many men; facts lie in their minds like pebbles upon the shore of the ocean, without order or relation. For an example of one who has pursued theoretical inquiries in a spirit such as I have indicated, I refer to Claude Bernard, whose brilliant discoveries in experimental physiology and pathology have been made in obedience to such principles, and whose motto is, to use his own words, "When we encounter a fact in opposition to a reigning theory, it is our duty to accept the fact and abandon the theory, even though it may be sustained by great names, and generally adopted."\*

I am not unmindful of the truth that many of the most valuable discoveries in medical knowledge have been apparently accidental; but this is measurably true of every science, and does not shake the position I have taken, for, after all, every such discovery will, I apprehend, be found to owe its adoption mainly to the more theoretical minds of the profession. The practical men have, for the most part, scouted every such invention or discovery, whether it was mercury, antimony, vaccination or cinchona. The grandest single discovery of modern medical science, that of anesthesia, was the result of a theory.

Theories mark or test the amount of our knowledge in relation to things about which we theorize. The theories of Faraday or Liebig are superior to those of Paracelsus or Van Helmont; Newton's suggestions to those of Copernicus; but the proposition hardly needs proof.

Theories stimulate inquiry to sustain or rebut the positions taken, thus being instrumental in separating the known from the unknown, and in giving definiteness and precision to our information. In physiology, for instance, how many facts have been discovered by men who had a theory to establish or overthrow. The discovery of the circulation of the blood, even, was the result of a theory. "I began to think," says Harvey, "whether there might not be a motion, as it were, in a circle."—*Works, Syd. Soc. Ed., p. 46.* Columbus pursued a theory till it resulted in the revealing a new

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\*Quand le fait qu'on rencontre est en opposition avec une théorie régnante, il faut accepter le fait et abandonner la théorie, lors même que celle-ci soutienne par de grands noms, est généralement adoptée.—*Introduit. à l'étude de la Méd. Expérimentale*, p. 287.

world. Without a theory Newton would not have unfolded the grand laws that bind the universe to harmonious action.

That in practical medicine the application of theories to the cure, relief, or prevention of disease, has undoubtedly been productive of much harm, I am willing to confess. But how few of us, nevertheless, do not practice upon some theory? often, perhaps, all unconsciously, but none the less really. It does not follow that because practice is based upon theory that it must be wrong or harmful, even though the theory itself be erroneous. It is said of Boerhave, that in following out his fanciful notions, he stumbled upon some practices, the utility of which has been sanctioned by experience. For example, he dissuaded from the use of sudorifics and strong purgatives in pleurisy, from the consideration of their carrying off the most liquid part of the blood, leaving the remainder in that state of spissitude, in which he thought the proximate cause of inflammation to consist. He believed that the blood owed its red color to iron, and in that view strongly recommends iron in chlorosis and other diseases of chronic debility, in which there is a general deficiency of the red globules. These, and many other instances that might be cited, prove that one may reason erroneously, or theorize incorrectly, and yet practice very rationally.

We can hardly say as much for another theory, which I quote from Zimmermann. A Dr. Short relates the wonderful history of a man who became consumptive, and who had his body covered with ulcers. This patient, he says, was perfectly cured by means of the elixir vitriol, and the use of the cold bath. Short was desirous of seeking the cause of this cure in the increased pressure of the air; and after, as he thought, having established his hypothesis, goes on to propose a cure of hydrophobia from analogy; and this he would do, he tells us, by letting the patient down into the sea to the depth of ten feet; because then he supposes the weight and pressure of the water will be sufficient, by bracing up the solids, to promote and increase the urinary discharge and perspiration, and thus carry off the poison. The historian does not inform us whether the ingenious Doctor ever put his theory to the test or not; it certainly is very plain that it would be an *effectual* remedy.

But to conclude, for I must not tax your patience farther, what is the final estimate we put upon theory in its relation to practice? Neither excessive laudation nor excessive depreciation, but this,—that with due regard to proper limitations and conditions, a theory is a very valuable servant to the cause of truth. If we receive it as

a provisional statement or explanation, the truth of which remains to be established, either by experiment expressly instituted, or by taking advantage of those that are being made for us by nature, then it is to be welcomed;—if, on the other hand, we are to take the theory of this or that man as the ultimate expression, and become partisans instead of seekers, in that case it brings only a train of evils. While so much remains to be known, while the measure of our positive knowledge is so small compared with what remains to be known, the field for speculation is practically unlimited; and I look for much aid to be rendered in that direction by shrewd and well-digested theoretic suggestions.

As we said in the outset, so we say in conclusion, that one of the most encouraging signs of promise in the medical world is this, that schools and systems, theories and hypotheses, find so few heated, bigoted partisans; and that the profession, as a whole, stands so far above the narrowness of sectarianism.

ARTICLE III,

## ARMY HYGIENE.

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JEWETT PRIZE ESSAY,

• ON THE QUESTION,

BY WHAT HYGIENIC MEANS MAY THE HEALTH OF  
ARMIES BE BEST PRESERVED?

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*Haec autem cognosci experimentis.—A. Corn. Celsi Liber Primus.*

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BY

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## PRELIMINARY.

To attain the utmost exemption from the diseases incident to military service, as well as the highest degree of physical efficiency, care must be used in selecting the men composing the army. But the wisest discretion in selecting men will avail little if no attention be given to the hygienical management of the recruits after their entrance upon the military life. The process of transforming a civilian into a soldier, is attended with various dangers to his health, which may be lessened or prevented. If the recruit pass unharmed through this transitional period, he encounters as a soldier, sanitary evils in other shapes.

The hygienic means by which the health of armies may be best preserved, can, therefore, be advantageously studied in respect to the **SELECTION OF RECRUITS**, the **TRAINING OF RECRUITS**, and the **EXPERIENCES OF THE SOLDIER**.

## CHAPTER I.

## THE SELECTION OF RECRUITS.

THE discussion of this subject in its entirety would embrace the whole field of military medical jurisprudence, but such an extended treatment of the questions involved, is, obviously, not within the scope of the proposed inquiry. It is necessary, however, to attach due importance to those conditions which do not come within the cognizance of the examining surgeon, or are so ill-defined as not to constitute valid causes of rejection under recruiting regulations.

Capacity for military service consists chiefly, in the possession of accurately adjusted physical powers; but it includes also, certain moral and intellectual qualities comprised in the term *aptitude*. The most military nations, have exhibited great solicitude in respect to the physical qualities of their soldiers; but this solicitude has not always been expended in the right direction. The demands of great wars have too frequently, lowered the standard of requirement unduly. Even in time of peace, sufficient attention is not given to all those conditions of the human organism, as age, constitutional peculiarities, morbid tendencies, which favor the reception and growth of morbid agents and insure the development of inherent vices. In any scheme for preserving the health of armies, the judicious selection of recruits should hold the first place.

As a basis for the inquiry, it will be useful to ascertain what has been the practice of the most military nations, and how far it has conformed to the requirements of hygiene.

The Romans, the most warlike nation that has ever existed, admitted the justice and necessity of certain causes of exemption from military service. When the exigencies of the state required—as an insurrection in Italy—all citizens from the ages of 17 to 45 were compelled to enlist, and sometimes the sick and infirm (*causarii*, *T. Liv.* VI. 6); but physical disability was generally held a sufficient excuse. The careful training to which recruits were subjected and the length of the tenure of service, were well calculated to produce a military organization of high efficiency—for the weak and infirm must have soon yielded either to the preliminary training or to the hardships and exposure of the numerous campaigns upon which the Roman soldiery were engaged. Twenty campaigns was the term of service of a foot soldier, and ten of a cavalryman. Early in the history of the city, no one could hold an office who had

not served ten campaigns (*Polyb.* VI. 17). The immense losses which must have occurred from the failure of recruits, probably, rendered this prolonged service necessary—for a man having survived all of the accidents of his first campaigns, was not to be given back to civic occupations in exchange for an untried civilian.

In France, the most military of modern nations, the conscription includes, with a few exceptions, all above 20 years of age. The standard height is 5 feet 1½ inches. Provision is made for ascertaining the existence of constitutional vices although they may not have resulted in specific physical disabilities which unfit for military service. The "Councils of Revision" are required to determine whether "by reason of feebleness, morbid tendencies or existing disease, the health or life of the recruit may not be compromised by the ordinary circumstances of the military career."—(*Didiot. Code des Officiers de Santé etc. Deux. Part.*, p. 461.)

The age of 18, except in the case of musicians, is the minimum age for admission to the British army. Voluntary enlistment being the mode of recruiting the army, the usual inspection of all who apply, is made by the recruiting and medical officers. Those are not accepted who do not conform in age and physical stamina to the official requirements, but constitutional states, unless evidenced by existing disease which unfits for service, and morbid tendencies, are not recognized as valid causes of rejection.

In Prussia, military service is required of all men not physically disqualified, between the ages of 20 and 39. The forces are divided into four classes: The standing army which consists of all able-bodied men of twenty; the "landwehr of the first ban," which is made up of the men from twenty to thirty-two, who do not belong to the standing army; the "landwehr of the second ban," composed of the men from thirty-two to forty years of age; and the "landsturm," which includes all from seventeen to fifty not embraced in the three other classes. The landwehr of the first ban, constitutes an army of reserve to be called out in case of war. The landwehr of the second ban, in time of war garrison the fortifications and may in emergencies be required to fill up the regular or standing army. The fourth class is called out, only, in the case of invasion. So thoroughly does the Prussian military system embrace all, that those disabled in service, and invalids unfitted for field service, are organized into an Invalid Corps. During the recent military operations, which culminated in the battle of Sadowa, the Royal Prussian Army was composed of the standing army and the landwehr of the first ban, the flower of the population.



Nineteen is the minimum age for admission to the Austrian service, and the duration of enlistment is eight years under the colors and two years in the reserve.

There are two principal sources of supply to the Russian Army; conscription from the class of peasants, and those born into the military service—the sons of soldiers. Twenty-five years is the period of service for the line, twenty-two for the guard, and twenty for military colonists. So great length of service insures the elimination of the weak and infirm, but as the conscripts are selected by lot, there must be a large number admitted, who are disqualified by reason of constitutional vices. As a general rule, however, the Russian soldier has the physical qualities to fit him for a military life.

In the United States' service, eighteen is the minimum and thirty-five the maximum age at which recruits are admitted. During the rebellion, under the Enrollment Act, the age of twenty was fixed as the minimum and forty-five the maximum. As in the English service, only obvious physical defects constitute a valid cause of rejection and the influence of diatheses and cachexias is practically ignored.

I have now to inquire whether the practice of governments has been judicious in the hygienic sense, in fixing so young a minimum age, and in ignoring to so great an extent, the influence of constitutional states in the production of army diseases. After a careful survey of the whole ground, I venture to affirm that a due regard to the hygienic condition of armies, requires that the minimum age be elevated to twenty five, and that the influence of diatheses and cachexias in the causation of disease be suitably recognized.

This declaration cannot be admitted without proof.

The facts of anatomy and physiology conclusively demonstrate that the growth of the body is not completed until about the 25th, and according to some authorities, not until about the 30th year. Thus M. Quetelet (*Tardieu, Dictionnaire d'Hygiène Publique, etc. Tome 3me, p. 2*) asserts that the growth of man is not completed until thirty; his figures, however, show that but slight increase takes place after twenty-five. Quain, in his great work on Anatomy, has demonstrated that the epiphyses of the radius, ulna, femur, tibia and fibula, are not permanently united to the shafts of these bones until the twenty-fifth year. The same fact is insisted upon by Aitken (*Growth of the Recruit and Young Soldier, 1862, p. 37*). As the development of the muscles proceeds *pari passu* with the

growth of the bones, it is certainly true that these important parts are not matured until the union of the epiphyses with the shafts of the long bones has taken place. The hardships and exposure of the military life interrupt the normal development of the bones and muscles. Flattening of the chest and gibbosity are produced by carrying the knapsack and other accoutrements. The most important changes are those produced in the lungs and heart. It is a well known fact that hypertrophy of the left side of the heart and dilatation of the right cavities, occur as a result of unwonted exertion in a frame not yet matured, and possibly weakened by insufficient and improper food. This fact is signalized by Hammond in his able treatise on hygiene (*sec. 1, chap. 1*). He also refers to the flattening of the chest and "the consequent development of the tubercular disease of the lungs," as a result of the operation of the same causes (p. 39.) Some very striking observations on the same subject, have been made by Dr. W. C. Maclean, Professor of Military Medicine in the Army Medical School.—(*Parke's Manual of Hygiene, 2d edition, p. 397.*) "From the 1st of July 1861 to 30th of June 1862, 4087 men were discharged the service; 569 of them (or 13·92 per cent.) had less than two years' service, and of these 14·76 per cent. were lost to the service by *heart diseases*."

"From the date of my assuming charge of the medical division at Fort Pitt in April 1861 to the end of last year, no less than 833 cases of diseases of the circulatory system have passed under my observation, and been lost to the service, and this from one class of diseases; the great bulk of the cases being *young men*." In another place, Dr. Maclean remarks, "a vast number of the young soldiers discharged the service for heart disease, have never suffered from rheumatism at all." These statistics confirm the deductions of physiology and the practical demonstrations of the anatomist. The heart, in common with the rest of the muscular system, does not attain its full development until about the age of twenty-five, and is very liable to be damaged by excessive work previously to that age.

Moreover, recruits under twenty-five are more susceptible to the action of the common causes, and to some of the specific causes of disease, than men more advanced in life. Thus, the sickness rate amongst the young conscripts in the French army, is one-third greater than in the army generally. Whilst the mortality for all ages was in 1863, 9·16 per 1,000 of mean strength, amongst the young conscripts it was 13·26 per 1,000. This fact was exhibited on a large scale during the war of the rebellion; a great many young

men were admitted to the ranks ; they were found in large numbers in the various military hospitals, affected with measles, pulmonary and intestinal diseases, fevers, and the results of cardiac lesions. I may cite in illustration of these observations, the statistics of camp measles. According to Circular No. 6, "21,676 cases and 551 deaths were reported during the first year of the war, 16,345 cases and 1,313 deaths during the second ; but there is reason to believe that the actual number of cases was considerably greater, since it is well known that the disease frequently prevailed epidemically in new regiments after the men began to come together in the State to which they belonged \* \* \* \* before their medical officers began to report to the Surgeon General's Office." That this disease prevailed chiefly amongst young recruits, appears conclusively from some statistics published by Asst. Surgeon Roberts Bartholow in the *American Medical Times* for May 14, 1864. "In 100 cases only four were old soldiers, in two of whom it is probable the disease occurred a second time ; in 28 cases of the 100, the recruits were aged 18 ; and in 68 cases the ages of the recruits were from 17 to 20 inclusive." He further states that "the mortality in the 100 cases analyzed was 28, but the average mortality for the hospital was 22.4 per 100 cases."

Said Napoleon on a memorable occasion, "I demand a levy of 300,000 men ; but I must have grown men ; boys serve only to encumber the roadside and to fill the hospitals." This great captain, saw that young recruits were deficient in the hardihood and physical endurance necessary for the soldier, and that they were also more liable to disease than older men. The leading military authorities are unanimous on this point. Ballingall (*Outlines of Military Surgery*, 5th ed. p. 33) says, "I think we may state that the most eligible period of life for enlistment is from twenty to twenty-five years of age. These views are all too forcibly illustrated and too fatally confirmed by recent events in the Crimea, and from the sentiments expressed by distinguished statesmen in both houses of Parliament, it is to be hoped that an end will now be put to the practice of sending youths abroad, not to live, but to die, at the public expense." Dr. Macleod (*Notes on the Surgery of the War in the Crimea*, p. 97, Eng. ed.), in some remarks upon the character of the recruits sent out to the Crimea, presents in the most forcible manner the evils of enlisting youths. "Many of them were raw boys, ill-conditioned, below the standard age, and undeveloped in body, unconfirmed in constitution, and

hence without stamina or powers of endurance. \* \* \* \* Cholera or fever speedily seized them, overtaxed as they were in work, and unaccustomed to either the food or the exposure which fell to them. The hospitals became filled with such unpromising patients, whose 'wizened' look of premature age was remarked by the most casual observer. If these unfortunate boys were severely wounded, they almost invariably died," etc. Tardieu (*Dict. D'Hygiène, op. cit., Tome III, p. 2*), after an examination of the relative mortality at different periods of service, remarks upon the impropriety of enlisting youths, as follows: "It is not alone necessary that recruits should be vigorous and well made, but they should have arrived at an age when they have acquired all their strength. \* \* \* We may cite a remarkable example of the importance of age to soldiers—the campaign of 1805, in which the army marched 400 leagues to reach the battle field of Austerlitz, leaving very few sick upon the road. The youngest soldiers were then twenty-two years of age and had been two years in service. In the campaign of 1809, the army encamped in the German provinces, had but a short distance to march, yet all the hospitals were filled with the sick. More than half were under twenty years of age."

The military experiences thus strongly support the teachings of hygiene—that men are not fitted to endure the fatigues and privations of a military life, until the growth is completed, the epiphyses are united to the shaft of the long bones and the muscles are fully developed.

Besides the physical evils which grow out of the enlistment of very young men, there are certain moral considerations which should not be overlooked. As the philosophical Jackson has stated, (*Economy, Formation and Discipline of Armies, p. 12*), "In youth action is rapid, impetuous and desultory, but it is not steady and persevering; desires are fierce but they are changeable," "In mature age, action is vigorous, steady, and persevering. \* \* \* Hence, persons who have attained mature age are the persons to constitute that part of the army which is destined to decide the battle by constancy of courage and the grasp of power." Hammond has expressed similar ideas in a more practical form. "Whilst success attends the course of an army, the soldiers under adult age are not prone to be depressed and discouraged; on the contrary, they are often excessively enthusiastic; but as soon as reverses ensue, or the food or clothing get to be deficient, or the weather changes for the worse, melancholy and nostalgia attack them, and they be-

come at once worse than useless." All physicians are aware of the influence of the depressing emotions in the causation and exacerbations of diseases. Nostalgia not only proves fatal of itself, but it is an element of no small importance in determining the mortality from various diseases of the camp. It need hardly be asserted that nostalgia, although not confined to very young recruits, is nevertheless much more common amongst them.

Old age does not so frequently come in question as influencing the hygiene of armies, as youth. Nevertheless, some observations on this point may not be entirely useless. After forty-five, the maximum age at which recruits should be admitted, various defects become manifest, of which changes in the circulatory system, fatty and calcareous degeneration of organs, fragility of bones, flabbiness of muscles, loss of teeth, impairment of nutrition in consequence of changes in the glandular apparatus of the intestinal canal, and diminished activity of the special senses are most important. Premature old age, in which the changes above sketched occur at an earlier period, indicates a vice of constitution fatal to military efficiency. The indications of age should, therefore, govern the decision in any case, rather than the number of years of life as shown by the baptismal register.

There are certain diatheses and cachexias which play an important rôle in the hygiene of armies. They should have their true importance assigned them in a discussion of this subject—for they are the obscure causes of many of the most serious diseases of the camp. It is not always possible to recognize the existence of these constitutional states, and if recognized, the propriety of rejecting men on account of them may not be conclusive. Furthermore, the necessities of States may be so urgent as to forbid too rigid application of the rules of hygiene. As the strength of an army is measured by the number present and fit for duty, and not by the number of names borne on the muster rolls, there can be no real advantage in enrolling those who will quickly fall a prey to disease. Viewing the question solely from its hygienic aspect, there can be no doubt of the propriety of a rigid scrutiny into the constitutional predispositions of recruits, rejecting, as unfit to bear the hardships of a military life, those affected with the rheumatismal, the scrofulous, the tuberculous and the albuminoid diatheses; and the scrofulous, the tuberculous, the syphilitic, the alcoholic, the paludal, the saturnine and the mercurial cachexias. The constitutional states implied under these terms, are as distinct clinically,

as the terms themselves, are distinct etymologically.—(*Des Diathèses et Des Cachexies, par Dr. Tim. Fels, Strasbourg, 1865.*)

The relation of constitutional states to local diseases, is a *vezata questio*, which cannot be answered in the present state of medical science. Nevertheless there are sufficient data to justify the assertion, that if the diathesis or cachexia exist, the rough experiences of the soldier can hardly fail to rouse it into activity. This is especially the case with the rheumatismal, the tubercular and the albuminoid diatheses and with all the well-marked cachexias. In addition to the immediate effects of these constitutional states, the subjects of them are especially liable to intercurrent diseases of a grave character. The influence of the constitutional diseases in the sickness rates of armies is exhibited on a large scale in the statistical report for the first two years of the rebellion. For the first year, the number of cases returned under the head of *constitutional diseases*, was 52,474, and for the second year 117,738. The number of discharges for this class of affections for the first year was 7,298. Making a suitable allowance for feigning and fraud, there remains a large number of these cases, showing unmistakably the influence of the diatheses and cachexias upon the hygiene of the army, and the necessity for eliminating them in the selection of recruits. It may be enquired—What is the practical value of this recommendation? How can the elimination of the diatheses and cachexias be accomplished? Many of them are evinced by such characteristic signs, and have so affected the health and stamina as to authorize rejections under recruiting regulations. But I now refer more especially to those constitutional states, which, although evident in the physical characteristics of the individual, are yet more conclusively shown in the family history. Hence hereditary predisposition—the appearance in successive generations, of scrofula, tubercle, rheumatism, the albuminoid degeneration of organs—should be made a leading idea in the investigation of the fitness of a man for the military service, just as it is made a question of importance in the examination for life insurance.

The ideal standard of a good recruit, may be stated as follows: height 5 feet 10 inches; weight 160 pounds; thorax, 36 inches in circumference. As tall stature is usually gained at the expense of the thorax, and is derived from the length of the legs, very tall men are not only deficient in power, but are exposed to various diseases in consequence of their height; e. g. pulmonary affections, camp dysentery, and varices. Below the minimum standard, power is deficient, and sources of decay exist in the original weak-

ness of the formative or developmental force. Obesity is a condition significant of grave lesions of the nutritive processes. Much depends upon the vital capacity, the expansive mobility and the development of the chest. In general, it may be stated as a close approximation to the ideal standard, that the girth of the chest should equal half the height, and the expansive mobility be not less than three inches. A less capacity than this, indicates disease, or a tendency thereto, which may develop into serious mischief under the trying conditions of a soldier's life.

In order to secure a healthy state of an army, it is not alone necessary to enlist men who conform, more or less closely, to the ideal standard of physical manhood. Those moral and intellectual qualities comprehended under the term aptitude, have as much to do with the health, as with the military efficiency, proper, of the soldier. It is undoubtedly true that a state of the highest physical health, will produce, or be accompanied by, cheerfulness and equanimity of mind. *Mens sana in corpore sano*. On the other hand, the power of adaptation to circumstances, the endurance of fatigue and hardship, and the resistance to external morbid influences, are to a considerable extent, dependent upon reason and reflection, and that calm mental state which comes of a conviction of duty. Hence it is, that mercenary soldiers, whether native or foreign, are found in proportionally larger numbers than others, in military hospitals. I do not mean, merely, that they are more given to feigning disease, but that they more readily succumb to morbid influences. It is obvious enough that the mental condition of the recruit, will have little influence in determining his fitness for the military service.

Against the recommendations which I have made in this chapter for preserving the health of armies, it may be objected that the observance of them would materially lessen the number of men who are now called into military service. I might show how the efficiency of armies would be increased, the sickness and mortality rates diminished and the pecuniary outlay lessened by adopting these requirements of a sound military hygiene, but such reflections are so obvious, it would be a waste of time and space to make them. If the choice were left to a humane and judicious general, desiring success from the highest personal and patriotic motives, he would select an army organized from the best materials, although made numerically weaker by the loss of those under twenty-five and over forty years of age, and those deteriorated by constitutional vices.

## CHAPTER II.

## THE TRAINING OF RECRUITS.

Statistics abundantly demonstrate that the fashioning of recruits into soldiers is injurious to health and destructive of life. In the French service the sickness of recruits is one-third greater than that for the whole army. "It is in the beginning of service," says Tardieu, "that the mortality is greatest." He furnishes in proof of this statement, the following table of mortality for different years of service:

|                           |                    |
|---------------------------|--------------------|
| 1st year of service,----- | 7.5 loss per 1,000 |
| 2nd " " "-----            | 6.5 " " "          |
| 3rd " " "-----            | 5.2 " " "          |
| 4th " " "-----            | 4.3 " " "          |
| 5th " " "-----            | 3. " " "           |
| 6th " " "-----            | 2. " " "           |
| 7th " " "-----            | 2. " " "           |

In 1862, according to the "Medical Statistics of the army," the mortality from disease under one year's service was 11.45 per 1,000. In 1863 the mortality under one year's service was 13.26 per 1,000; whilst for all periods of service, it was only 9.16. But few statistics have been published, showing the comparative mortality at different ages in the British service. Those which I have already quoted from Dr. Maclean may be referred to in this connexion, as proving the excessive mortality of the first year of service. Dr. Parkes in his *Manual of Hygiene* (p. 399) confirms the statements of Dr. Maclean by some facts of his own, obtained by "comparing the amount of heart and lung diseases among the young soldiers, with the same diseases among the invalids of all ages at Fort Pitt in the two years. The following numbers came out:—

|                                               | Per centage of lung diseases<br>as a cause of invaliding. | Per centage of heart diseases<br>as a cause of invaliding. |
|-----------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------|
| Invalids of all ages,-----                    | 7.7                                                       | 19.8                                                       |
| Invalids under two years' service, 14.23----- |                                                           | 29.29."                                                    |

Our army for the first two years of the rebellion, was constituted almost wholly of recruits. The statistics of mortality for this period may therefore be compared with the mortality rates of the French conscripts.

|                                                             | Per 1,000 |
|-------------------------------------------------------------|-----------|
| Mean mortality of recruits in U. S. Army for 2 years,-----  | 56.9      |
| Mean mortality of French conscripts for 1862 and 1863,----- | 12.55     |



It may be objected to these statistics, that in the one case a state of war existed, which greatly increased the mortality; but the casualties of battle and the deaths by violence are excluded, so as to make the conditions in the two cases as nearly uniform as possible. The difference in the results would seem to be due more especially to the different modes of collecting and training the recruits. In France, the administrative service of the army has reached a high degree of efficiency. All of the ordinary contingencies are provided for; depôts are arranged for the reception of recruits, and rules for their hygienical management, the outgrowth of long experience, have been established. In this country, on the contrary, the business of collecting recruits and organizing armies is conducted in a hurried manner; depôts where large numbers of men are huddled together, are improvised, and are, of course, deficient in the machinery necessary to carry on the multifarious concerns of these establishments. A successful issue out of chaos is entrusted to that "organizing tendency" assumed to exist in every mass of human beings. It need occasion no surprise, that under this system recruits become diseased, and that armies waste away in the very act of being formed.

When the outbreak of great wars or revolutions requires that a large part of the adult male population be brought under arms, provision for the proper training and hygiene of recruits, is generally inadequate; hence, as in these States, disorders and irregularities prevail. Under these circumstances everything done, is to supply the need of the moment. In the selection of a site for a depot, little attention is paid to the requirements of hygiene. Convenience and the necessity for preventing desertion are chiefly consulted. The character of the soil, the drainage, the surroundings, near and remote, are not carefully investigated; the necessary conditions seem to the military mind to be fulfilled, if wood and water exist in sufficient abundance. The positions of the tents or buildings upon the chosen site, are regulated by military custom in like cases, or by convenience; and the sunlight, the direction of prevailing winds, and the density of the population per square mile, are disregarded. The amount of space allotted each man in tents or quarters, is governed by the number to be accommodated and not by the hygienic needs of individuals. The care of rations and the preparation of food are entrusted to the raw men, just drawn from civil life, who are unfitted by ignorance and disinclination for the performance of this duty. The

food is wretchedly prepared, the rations wasted or lost, and hunger is frequently added to the other miseries of the depot. Blankets and straw are not sufficient to prevent suffering at night, and hence the recruits lie close together to preserve their warmth. Personal cleanliness is, either not enforced or cannot be attended to. The recruit rarely or never removes his clothing, and the secretions of the sudoriparous and sebaceous glands, united with the cast-off cells of the epidermis and dirt, form a coating which impairs the functions of the skin. During the day, hours of idleness are interspersed with exhausting drills. The camp police is neglected, or very imperfectly performed. The ground about the tents or quarters, soon become saturated with urine. The immediate environs of the camp are used in common as a latrine, or shallow sinks filled with ordure, uncovered send forth their poisonous gases. The kitchen offal is thrown upon the ground about the kitchens. The water supply, quickly becomes contaminated by the direct addition to the stream of the ordure and offal, and by the surface drainage of the camp. These evils are not so injurious, probably, as the bad air and bad police of the quarters. A nauseous animal odor is at once perceived on entering the quarters; it adheres to the walls, to the blankets, to the clothing and to the persons of the men. The air of the tent or quarters, is heavy, close and suffocating. Besides the carbonic acid which has taken the place of much oxygen removed by respiration, the air contains volatile emanations from the bodies of the occupants—including a volatile fatty acid—epithelial scales, a fœtid nitrogenous matter—all of those complex and highly injurious substances included under the term *organic matter*.

It must not be forgotten that some of these hygienic evils are inseparable from the military service. For the purposes of war it is essential that men be assembled at given points in large numbers, and in the movements of armies, the military necessity may require that the forces be encamped upon the smallest possible area—a space, hygienically considered inadequate. The most approved measures of hygiene can be efficacious in part, only, against the evils of crowding. A crowded military camp has all the elements of disease present in it, that are found in a large and densely populated city, and many others in addition.

Such, in brief, are the bad hygienic influences into which the recruit is suddenly inducted. By what hygienic means may the health of recruits be best preserved under these circumstances?

Can the details connected with the collection and training of recruits be so arranged and conducted as to diminish the great mortality of this period in the life of the soldier? I may reply to these questions in the affirmative. Much may be done to render less abrupt the change from the experiences of civil life, to diminish the crowding and its attendant evils, to improve the personal hygiene, and to prevent the spread of epidemics. I propose to consider the means by which the hygienic condition of recruits may be improved, under the following heads:

THE HYGIENIC UNIT.

THE PRIMARY DEPOT.

THE GENERAL HYGIENE OF THE DEPOT.

THE PERSONAL HYGIENE OF THE RECRUIT.

MORAL AGENCIES.

THE CAMP OF INSTRUCTION.

1. *The Hygienic Unit.*—There does not exist the same necessity for assembling recruits in large numbers at any given point, as is the case in the movements of armies. It may be laid down as an axiom—the fewer the men collected in a depot, the less the liability to disease. Under ordinary circumstances the number of depots may be sufficient to avoid the chief evils of crowding.

As a regiment (or body of 1,000 men) is the unit of organization of an army, it may also be regarded as the hygienic unit.

A body of this size may be readily provided with all the appliances required to maintain them in a healthy state, and they may be so distributed over the surface of the ground occupied by them as to avoid the evils of crowding. For all the purposes of instruction and discipline, the regimental organization is the best, and the instruction and discipline of a regiment can best proceed, at least as respects the school of the soldier and battalion, apart from other military organizations.

2. *The Primary Depot.*—Assuming that the hygienic unit—a regiment or body of 1,000—is correct in principle, recruits should be assembled in primary depots having a capacity to accommodate this number. Here the instructions, preparatory to more extended military operations, should be conducted. Considered in the hygienic aspect, these depots are intended to prepare the recruit to encounter the sanitary evils of his future military life;—in the military aspect to conduct his military education and training. These two objects need not be made incompatible. In a practical

scheme for preserving the health of armies, the military necessities must be provided for.

What extent of superficial area should the hygienic unit be distributed over in preparing a primary depot? It is obvious that the military necessity does not require that these men be confined to a space no larger than that permitted to the same number of soldiers in the presence of an enemy. With some limitation we may assume that the primary depot can occupy as much ground as the hygienic necessity may require. When desertions are numerous, a smaller space may seem necessary—for the difficulty of guarding a body of men increases with the extent of ground over which they are distributed. Desertion is a moral and military question rather than hygienic; but I may be permitted to observe that, to prevent desertion, something more than military cordons is requisite: the military service must be made desirable, or at least, endurable, by rational men.

According to the regulation standard a camp of a regiment of infantry has a density of population, for the enlisted men, equal to 300,000 per square mile, which is twice as great as the average of London. There can be no necessity for such extreme crowding in the case of recruits in a primary depot. The density of population for them should not exceed the rate of 20,000 per square mile.

The site selected for a primary depot should be convenient to that part of the country from which the recruits are drawn, and as far as practicable movements of recruits should be made along the isothermal, isotheral and isochimeneal lines to which they are already habituated. Malarious localities should, of course, be avoided. Exceptions to this rule may be necessary, but in malarious regions great differences in the salubrity of different districts may exist. Low, moist and marshy situations are unsuitable. The grounds should be elevated and have natural drainage in several directions. A clay soil, or a clay sub-soil, is objectionable because retentive of moisture. The immediate and remote surroundings of the proposed site should be carefully examined. Distant marshes, low grounds, river bottoms, etc., may furnish malaria which will be transported by prevailing winds; hence, if a depot must be placed in the neighborhood of such objectionable localities, a site to the windward of them should be selected. Hills at the head of ravines, leading up from low, malarious valleys, are generally very unhealthy situations. In countries not malarious, chief attention must be given to the elevation, natural

drainage, soil and sub-soil. It may seem a labor of supererogation to dwell upon these simple details, but any one familiar with army experiences will know how frequently the rules of hygiene are violated in respect to all of these subjects.

The water supply is a most important part of the appliances of a primary depot. Some of the difficulties attending the general question of water supply may be obviated by adopting the hygienic unit for primary depots, for the greater the number of men to be supplied, the more difficult to obtain the necessary quantity of suitable water. Whenever practicable the water of small streams supplied by springs, or pure river water, should be selected, and the *selenitic*, *calcareous* and *mineral* waters should be avoided. Shallow wells, containing surface drainage, should never be used for supplying recruits. To fulfill the necessary hygienic conditions, the potable water should possess the following qualities: it should be free from odor, taste and smell; it should give but a slight precipitate with oxalate of ammonia (lime), nitrate of silver (chloride of sodium), and chloride of barium (sulphates), and should not discharge the color of a standard solution of permanganate of potassa (no organic matter unoxysed). The saline and earthy impurities are of much less importance than the organic matter. Indigestion and diarrhea are produced in recruits by the use of hard waters (selenitic and calcareous). These waters are also unfit for washing. The most dangerous impurity is the organic matter, which may be of vegetable or animal origin, or of both; it may consist of organic substances declining in complexity of constitution as in ordinary putrefaction; it may be amorphous germinal matter in an aberrant state; it may consist of definite forms—cryptogamic and infusorial organisms. Shallow wells, and spring and river waters which have passed through alluvium and by the habitations of men, generally contain notable quantities of organic matter. The influence of this matter in the causation of intestinal disorders—diarrhea, dysentery, cholera, etc., is undoubted. I have witnessed the production of these disorders on a large scale amongst recruits by the use of water highly charged with organic matter. These effects more surely follow if specific products—cholera, dysenteric or typhoid matters—have gained access to the water supply. Before a site for a primary depot is determined upon, the proposed water supply should be examined. Simple chemical operations will determine the fitness of the water for potable purposes. The “soap test” may be applied to determine

the hardness of the water, and a solution of permanganate of potassa to estimate the unoxysed organic matter. Without going over details which may be found in any chemical work, it will suffice to explain the mode of operation of these tests. When a solution of a potash soap is mixed with pure water, a lather is obtained; but when mixed with water containing earthy bases, the soap is decomposed and the oleic acid combines with the earthy bases, forming a curdy precipitate. When water containing unoxysed organic matter is added to a standard solution of permanganate of potash, the color of the solution is destroyed.

If pure water cannot be obtained, what means can be employed to remove the impurities? Any measures proposed for this purpose must be simple and easily applied: complex chemical processes would, obviously, be unsuited to the special circumstances of the case. The most effective and easily accomplished methods of purification are boiling and filtration. At the boiling temperature, living organisms are destroyed and "germinal matter" deprived of vitality. But as boiled water is not pleasant to the taste, owing to the loss of oxygen and carbonic acid which were dissolved in it, these gases must be restored to it by agitation with air, or by more or less exposure to air when in a finely divided state, as in the process of filtration. Filtration may, also, be necessary to separate visible impurities, and to promote the oxydation of organic matter. Means exist in every camp for accomplishing the filtration of water. The water casks supplied to the quarters, or ordinary pork barrels, may be converted into filters by placing in them alternate layers of sand and charcoal, and connecting a receiver to collect the pure water. A filter of this kind requires to be occasionally exposed to the air to preserve its power. The process of oxydation is necessary to give completeness to the action of the sand and charcoal. If no air can reach the filter, oxydation is at last arrested. When there is a possibility of specific products becoming mixed with the potable water, or when much organic matter of any description is present in it, boiling should precede filtration.

Beside purity of the water, the amount available for supply is an important consideration. There should be an ample allowance, not only for drinking and culinary purposes, but also for bathing. The minimum quantity under any circumstances is 20 gallons per man, daily, but twice this quantity should be furnished if practicable.

The site being suitable and the water supply adequate, the next

point is the preparation of the ground. The alluvium and the decaying vegetable and animal matter should be carefully removed before tents are pitched or barracks constructed. The natural drainage should be improved by artificial canals. The sources of water supply, especially if springs or small streams, should be protected against contamination—if springs, they should be thoroughly cleaned out and walled up—if streams, their banks should be freed from decaying vegetable and animal matter, and stagnant pools communicating with them be drained.

For sudden emergencies—war happening to a people either unprepared, or too impatient to make suitable preparation—tents are the most available means of sheltering recruits. They are expensive considered relatively to their durability, and as ordinarily constructed and used, are exceedingly unhealthy. A tent is popularly considered to admit air freely on all sides, but practically this view is erroneous. The air in tents rapidly becomes vitiated by respiration and the organic emanations from the occupants, and crowding in tents is little less injurious than crowding in permanent quarters. The provisions for ventilating them are inadequate, and if made sufficient, are practically useless because under the control of the men, who, in cold or rainy weather, are careful to exclude the external air. If tents are used for the construction of a primary depot, the essential point is to provide a sufficient number to avoid crowding. If crowding be avoided, it matters little what particular pattern of tent, or patent ventilating contrivance, be adopted. In a tent occupied by several individuals, the minimum allowance of air-space is 200 cubic feet per man. To diminish the sanitary evils of the tent as a habitation for recruits, it should be floored with boards elevated six inches above the surface of the ground. No cause of disease is more potent in the primary depot than lying upon the damp ground, saturated, as it soon becomes, with organic matter in a state of change, or upon damp, mouldy and decomposing straw. The center of the ground floor of the tent should be the point of highest elevation, and a deep trench should be dug around the exterior, to insure a dry state of the soil upon which the tent is pitched. In addition to these hygienic precautions, the tents should be re-pitched and their location changed once every month; but frequent changes will be the less necessary if the tents are supported by frames and properly floored.

Wooden huts, or temporary pavilion barracks, are, for various reasons, preferable to tents. They can generally be constructed

with sufficient rapidity to supply the needs of the time, or, in a war of considerable magnitude and duration, they can be substituted for the tents first employed; and as respects economy, they possess advantages, in that the material of which they are constructed may be sold when no longer required. Badly-made and imperfectly ventilated barracks are greater evils, hygienically considered, than crowded tents; hence, pavilion barracks for primary depots should be constructed after the most approved models. The first and most important requisites are sufficient air-space, and provisions for securing a constant renewal of the air. These objects may be accomplished by having ample window space, ridge ventilation, and in addition, for winter, a heating apparatus which includes ventilation. The importance of isolation is now distinctly recognized; as few men should be under the same roof as possible; hence, the necessity for separate pavilions, and for restricting the size of them within certain well-defined limits. I have already indicated the density of population per square mile admissible for the primary depot. If this hygienic law be observed, the amount of space between the tents or barracks will be sufficient to insure the free passage of air, rendering any special arrangements of the individual tents or barracks of little importance. Under no circumstances, however, should the arrangement of the depot be such as to prevent free access of air to all parts of every tent or house. An abundant supply of air is the first requirement of hygiene, to which all questions of convenience or expediency must be subordinated. In a suitable ground plan for a primary depot, it will be seen that these conditions may be observed, and at the same time, convenience of administration need not be overlooked. Each of the pavilions is intended to be two stories in height—the first floor to be occupied by kitchen, dining and day room, commissioned and non-commissioned officer's quarters; and the second story to be fitted up as dormitories, provided with ridge ventilation for summer use and ventilating shafts for winter. The air space allowed to each occupant of the dormitory, should be 800 cubic feet. To insure frequent renewal of the air is easy during the months of summer temperature, but in the winter there are some difficulties attending it. An inexpensive expedient of undoubted utility, generally adopted during the late war, for heating hospital wards, consists of the following arrangement: the heating stove is surrounded by a metallic cylinder to which the external air is admitted by means of a shaft passing beneath the floor; the pure air being heated,



risers and is uniformly distributed throughout the room; and the air vitiated by respiration is conducted through the roof, by an exit pipe extending nearly to the floor. To insure an upward current through this pipe, the discharge smoke-pipe passes through it, furnishing sufficient heat for this purpose.

It seems to be a labor of supererogation to enter with any degree of particularity, upon the description of the barracks proposed as suitable for the primary depots. They are now so well known and have so large an experience in their favor (Crimean War and Rebellion) that it would suffice to say, that they are, as respects hygienical considerations, perfectly adapted to the purpose here contemplated.

3. *The General Hygiene of the Depot.*—The interior arrangements of tents and barracks are matters of some importance. It should not be forgotten that the central idea in the management of recruits is, to render the change from the experiences of civil life to the experiences of the soldier, as little abrupt as possible. Usually during the late war, the recruits were furnished a little straw and two, or possibly three blankets. The straw was thrown upon the ground, where it underwent the putrefactive decomposition, mixed with various kinds of animal and vegetable matter, and was rarely renewed or the tent cleaned. Hardly any error of hygienical management, is more serious in its results than sleeping on damp straw, upon damp ground, especially if poisoned by the organic emanations of previous occupants. The results are especially serious in the case of recruits just drawn from civil life and not at all habituated to such experiences. These dangers are altogether irrespective of the fungus discovered by Salisbury on damp straw—a *penicillium*, supposed by him to be causative of camp measles. This demonstration by Salisbury is not sufficiently supported by facts, to warrant us in adopting it as a true explanation. Nevertheless, the rapid development of these minute organisms upon the damp straw of the soldiers' tents, is a proof of the exceeding unhealthfulness of such a bed. It is very desirable that the primary depot be supplied with bunks, which may be of the simplest construction, consisting merely of a frame arranged to hold the bed-sack when filled with straw, and supported by posts high enough to elevate the bed a foot or more above the ground or floor. The straw should be renewed and the bed-sack washed once a month. A small pine table and a wooden stool should be assigned

to each bunk; otherwise the bed becomes the receptacle of all manner of nuisances and is used as a seat.

The utmost cleanliness of the quarters should be enforced. Immediately after *veille*, the blankets should be well shaken, neatly folded and placed on the foot of the bed, and once a week should be exposed to the direct rays of the sun. A most pernicious custom is the weekly washing and scrubbing preparatory to the usual Sunday morning inspection. This spasmodic effort atones for six days of uncleanness, and the resulting dampness of the walls and floors is a frequent cause of disease. Careful sweeping, only, is required, except at rare intervals, when the floors may be scrubbed, suitable precautions being taken to dry the quarters thoroughly before reoccupying them. Frequent applications of lime white-wash, are of unquestioned hygienic utility. Constant supervision is necessary to prevent interference with the ventilating apparatus.

The chief means for preventing the origin, and arresting the spread of the contagions and epidemics, are cleanliness and ventilation, but they should not be relied upon exclusively at the primary depot. An enlightened system of disinfection, should constitute a part of the hygienic means. The influence of the sulphurous and nitrous acid gases, of chlorine and of carbolic and cresylic acids, in the destruction of infectious matter, is now universally admitted. Whether epidemics be prevalent or not, the quarters of recruits should be thoroughly fumigated once a week. The best agent in respect to efficiency and economy, is sulphurous acid, which may be readily enough generated by the combustion of sulphur. When fumigation is practiced, the occupants should leave the quarters, and the gas should be evolved in large quantity and be allowed to remain several hours. The clothing and bedding should be exposed to the action of the gas. Chlorine is objectionable because it enters into combination with lime wash on the walls, forming the deliquescent chloride of lime. On the other hand, sulphurous acid uniting with lime, forms the colorless sulphite of lime, which continues the disinfectant action. Sulphurous acid destroys vermin, decomposes organic matter—and the facts authorize the assertion—arrests the spread of contagious diseases by destroying the vitality of *materies morbi*. In addition to sulphurous acid fumigations, the floors of the quarters should be occasionally washed with a weak solution of common or impure carbolic acid.

The cleanliness of the persons of recruits is so essential to their health, that no means should be left untried to promote it. The

first requisites, are an abundant supply of water and conveniences for bathing—if these are wanting, everything is wanting. Even if the quantity of water be no greater than twenty gallons per man daily allowance, which I have stated is the minimum, this will be sufficient, if judiciously expended, to permit the necessary bathing.

A lavatory should be near to, and yet distinct from the barracks. A very suitable arrangement consists in a combined latrine and lavatory—the water from the latter being used to flush the soil pipes of the former. The combined lavatory and latrine should be placed fifty yards in the rear of the quarters, there being one for each pavilion. A simple frame structure having ridge ventilation, divided by a central partition, and large enough to contain the bathing and latrine troughs; water laid on derived from mains or from a well sunk in the subsoil, are the elements of the proposed plan. The most difficult to arrange in a perfectly satisfactory manner, is the latrine. A very admirable and inexpensive arrangement which I have seen used on a large scale consists of a water-tight wooden trough with water laid on, covered with a moveable seat containing the necessary holes, and furnished with a large exit pipe secured by an iron weight. If there be a sufficient supply of water, no form of latrine is preferable to this; no odor is perceived even after prolonged use, and it is easily maintained in a cleanly condition. If it be necessary, the trough is readily disinfected, by the addition of sulphate of iron to the water, but no deodorizer is superior to a full supply of water in motion. The soil pipes must have ample capacity and sufficient fall to prevent accumulation of soil, and they must discharge at a point remote enough to prevent the privy odors reaching the quarters. A matter of the greatest practical importance, is to have the soil pipes so discharge as to prevent the possibility of contamination of the potable waters.

The latrine as ordinarily constructed and used at the primary depot, or the neglect to provide any, has been a fruitful source of mischief. There can be little doubt, I think, that the discharges of epidemic dysentery, of typhoid fever and of cholera, contain the morbid principles of those diseases. The air becomes poisoned by the evaporation of the liquid portion of the feces and by the solid portion in the form of dust; and the water by the surface drainage of the camp. The latrines with which recruiting depots are supplied, usually consist of nothing more than shallow pits, open to the external air. Sometimes rough seats are placed over

the pit, but not unfrequently the seat is nothing more than a pole. The exposure and discomfort attending the act of defecation whilst suspended on a pole, either deters men from obeying the call to stool, or impels them to the use of the grounds around the camp. These are powerful reasons why much attention should be given to the construction of suitable latrines at the primary depot.

No matter what may be the form of latrine adopted, it is necessary to disinfect with the utmost care, either by an ample allowance of water or by special chemical agents. If the common pit be the form of latrine in use, disinfection is more imperatively demanded. Experience has shown that the sulphate of iron is the best agent for this purpose in the proportion of 5 pounds to 50 gallons of fecal matters. To destroy the vitality of specific products, impure carbolic acid, carbolate of lime, common coal tar, or charcoal and lime, should be added daily to the contents of the pit. The most important of these agents is the carbolic acid in some of its forms. The efficacy of this is increased by the addition of sulphite of lime. A combination of this kind is the well-known McDougall's disinfectant. Every recruiting depot should be liberally supplied with this, or some disinfectant having a corresponding action, and it should be freely used after the application of the sulphate of iron.

The construction of suitable latrines cannot be made to take the place of sanitary and police regulations. To preserve the health of recruits and to prevent the spread of epidemics (cholera, dysentery, typhoid, etc.), it is necessary to compel the use of the latrine so that specific products may not be deposited upon the ground in the vicinity of the depot. Constant vigilance is necessary to preserve the cleanliness of the ground and to prevent direct addition of morbid matters to the potable water.

The construction of lavatories and latrines involves the question of water-supply and the means required to make the supply available. The methods used to supply camps and garrisons are generally of the most primitive description, and considered relatively to their cost, are inexpedient. Water carts are employed and they involve the labor of men and horses. A small pumping engine, of the value of \$1,000, will easily supply a primary depot—a work which would require the labor of ten men and twenty horses, employed every working hour in the day. A reservoir or tank, and distributing pipes, are necessary in addition to the engine. If this method of distributing water be not attainable, the

lavatories and latrines may be provided with surface wells, force-pumps and small tanks placed over the taps, high enough to give the necessary pressure.

Generally speaking, the ration provided for the soldier inured to the service is considered adapted to the needs of the recruit. As respects a certain number of men the military diet is an improvement upon that to which they have been accustomed; with a majority, however, as the case stands in these States, the ration is not equal in amount and variety to the food which they habitually consume. This will appear conclusively enough on examination of the ration issued to the troops of the United States who are more liberally supplied than the troops of any other nation. Before the war of the rebellion the ration consisted of the following:

|                     |                       |                                 |
|---------------------|-----------------------|---------------------------------|
| 12 oz. of pork, or  | 1 6 oz. of rice.      | 0 32 gill of vinegar.           |
| 20 oz. of beef.     | 1 6 oz. of coffee, or | 1 5 oz. desiccated potatoes, or |
| 18 oz. of flour.    | 0 24 oz. of tea.      | 1 oz. mixed vegetables          |
| 0 64 gill of beans. | 2 4 oz. of sugar.     | (desiccated).                   |

During the rebellion, the ration was authorized to be increased—the flour to 23 ounces, and fresh beef to be issued as often as practicable in lieu of salt meat; potatoes were added in the proportion of 1 pound per man three times a week; and it was further provided that when these articles could not be issued in these proportions, an equivalent in value of some other food should be allowed. Amongst regular troops, familiar with the details and economical in the management of their supplies, a considerable fund accrues from the sale of surplus rations (company fund). This is used chiefly to provide additional articles of subsistence; to increase the variety and to enrich the quality of the food. In the case of recruits, this degree of success in the management of supplies is hardly attainable; their appetites are more difficult to appease, and they are wasteful, because unaccustomed to the care of rations and the preparation of food. The ration is insufficient for recruits under existing arrangements, and more than the necessities of soldiers require. We have, in this fact, an illustration of the fundamental error, that what experience has shown is sufficient for the soldier is adequate to the needs of recruits.

That the U. S. Army ration, or the equivalent in value or quantity of some other food analogous in composition, is sufficient to maintain soldiers, and recruits also, in a healthy state, is obvious enough, provided it be put into an available form for the purposes of nutrition. The most liberal provision will scarcely suffice un-

less a corresponding attention be paid to the preparation of food. Men admitted to the military service are almost wholly ignorant of the most elementary knowledge of the culinary art. The confusion of a recruiting depot is not favorable to progress in this kind of knowledge. Notwithstanding this fact, the U. S. Army Regulations require that "at every recruiting depot pains will be taken to form from the permanent party a body of competent cooks, some of whom will be sent with every large draft of recruits to regiments." This regulation is based upon the military conception of competent cooking, which comprehends boiling coffee in a wasteful manner, frying bacon, and preparing an indigestible mixture styled "bean soup." To form a body of competent cooks, presupposes the existence of competent teachers of the culinary art—for skill in cooking comes of instruction and training, and is not a gift of nature. Every primary depot of 1,000 men should be provided with a chief cook thoroughly conversant with the methods of preparing palatable and nutritious food from the materials furnished him, and capable of instructing inexperienced men in these culinary processes. All recruits should receive some instruction, and those exhibiting aptitude should be carefully trained, so that companies in the field may be supplied with men skilled in this most important part of a soldier's education. A competent bread baker is as necessary to the primary depot as the cook. Men instructed in these trades may sometimes be found amongst recruits, but in general, they should be hired from civil life, and sufficient wages given to insure the best talent.

A suitable diet for recruits is a matter of the greatest importance. They should not be permitted to fall suddenly from the full and varied diet to which they were accustomed in civil life, to the meagre and unsatisfactory food of the camp; and the cooking of the food should be so accomplished as to satisfy the requirements of a reasonable taste. The giving of a suitable diet to recruits is by no means difficult, even at the rate of expenditure allowed under existing regulations, for these depots must necessarily be in the neighborhood whence supplies are drawn, and the articles in which the ration is deficient, hygienically considered, are much less expensive than the articles furnished. If we assume that the U. S. ration is the most liberal and complete which the resources of the nation permit, and hence, as liberal and complete as can be furnished by any other government to its soldiery, we may adopt it as the standard in our investigations. In what re-

spect may it be improved for the use of recruits? In order to produce a healthy mixed diet, it is necessary to regulate the proportion of animal and vegetable aliment. For the experiences of the field and to resist the influences of climate, the vegetable components of the ration must not readily undergo change—hence, the use of rice, beans and “desiccated vegetables.” For the same reasons, bacon or pork is the animal constituent, and beef, “if practicable,” because it may be transported “on the hoof,” following the movements of troops. It is obvious, in the case of recruits, that for rice and beans may be and should be substituted potatoes, beets, turnips and cabbage—articles always easily procured in the neighborhood of primary depots. One of these vegetables should form a part of the diet every day, and, in addition, all of them should enter into the composition of the soup. As the soup makes the soldier, a Napoleonic maxim hardly to be disputed at this day, it is important that this article of food be well and frequently prepared. Three varieties of soup may be prepared from the materials of the ration: vegetable soup, beef soup and bean soup, and one of these should constitute a part of each day’s dinner. Soup is especially desirable, because it may possess, if properly prepared, highly nutritive qualities; is readily distributed to large numbers of men, and may be made satisfactorily in the utensils issued to troops.

The dietary of the primary depot should not be left to the inclinations and caprices of the cook, but should be a matter of regulation—the articles and quantities for each day in the week being carefully prescribed. The utmost excellence of result attainable with the means should be sought for in the cooking of the food, as also, the greatest variety. A diet table constructed with this view should be arranged to suit the peculiar capabilities of each depot. Without going into tedious details it will suffice to state that as large an amount of vegetable food should enter into the composition of the diet, as the resources of the ration will admit. The U. S. ration is large enough to permit some important additions. A saving of 33 per cent. may be made in the flour ration when the bread is baked in the depot, and a part of the pork or bacon ration may be commuted. The money arising from these sources can, under existing regulations, be appropriated to the purchase of additional articles of diet. To secure the best results, and also to avoid wastage which necessarily occurs when cooks and kitchens are multiplied, a general kitchen and bake-house should be estab-

lished in every primary depot—as I have already indicated—for the preparation of the principal articles of diet. An auxiliary kitchen and a dining room will also be necessary to each pavilion. Considerable importance must be attached to the mode of serving the food. The abominable practice of serving out the diet after the manner of giving corn and slops to swine, if necessary in the field is not necessary and should not be permitted in the case of recruits at primary depots. The soup, meat, vegetables and coffee having been brought from the general kitchen to the auxiliary kitchen, should be prepared in the latter to be placed on the dining room table. Boards laid upon trucks, kept clean, make a suitable table, and a plain wooden bench, a seat. The table furniture need be nothing more than that allowed under existing regulations. The most scrupulous cleanliness of tables, utensils and stove in the auxiliary kitchen should be enforced; the walls should be frequently whitened; the floor should be sanded. Ample time should be allowed the men at their meals, and hasty eating should be discouraged. The utmost propriety of conduct should also be enforced. These details are not without importance. The appetite and digestion are much influenced by associations, and the habits of civil life, which the recruit carries with him into his new relations, should not be broken up too rudely. Sufficient interval is not allowed between the meals, or irregularities exist: thus, whilst dinner and supper are frequently but four or five hours apart, seven hours are permitted to elapse between breakfast and dinner. The utmost possible regularity should be observed in the hours for meals and the intervals between them.

To insure the careful preparation of food in accordance with the diet table, to induce personal cleanliness of the recruits, and to maintain a thorough state of police of every part of the primary depot, a system of daily inspections becomes necessary. Abandoned to their own devices, recruits are prone to commit all manner of offences against the laws of hygiene. They need instruction, example, and the fear of punishment to carry out the measures necessary to preserve health. A body of officers skillful to detect errors of hygiene and competent to instruct in correct methods, should make a thorough inspection of quarters, tents, latrines, kitchens, dining rooms and grounds every day. The clothing and persons of recruits should be examined at "Retreat" when paraded for evening roll-call. The senior medical officer of the depot should be a member of this sanitary board, and it should be his



duty, more especially, to take note of all those causes influencing the health of the command. Under existing regulations or "customs of service" this inspecting duty is devolved upon the "Officer of the Day;" but his military duties so occupy his time as to render it impracticable for him to perform the work assigned above to a body of officers especially detailed for the purpose. To insure the adequate performance of this duty, printed forms should be issued containing questions on all matters to be investigated. The inspection being completed and the questions answered, the report should be submitted to the commandant with such suggestions for improving the sanitary condition as may have occurred to the board in the course of their examinations.

If the methods of hygiene, here marked out in outline, were faithfully executed, much of the disease and mortality of primary depots would be prevented. Nevertheless, in spite of every precaution, epidemics may invade a primary depot, and prevail among its inmates. During the war of the rebellion, measles, mumps and small-pox visited many of the camps with great severity, but these visitations were obviously invited by the bad hygiene of these depots. These diseases are so certainly propagated by contagion, that the most strenuous efforts should be made to prevent their communication. Cases occurring should be at once removed beyond the possibility of contact with healthy men. The frequent fumigation of the pavilions or tents and their contained bedding, clothing, etc., in accordance with the recommendations already made, will prove an effective means of preventing the occurrence, and arresting the spread of epidemic and contagious diseases.

4. *The Personal Hygiene of the Recruit.*—As soon as a recruit arrives at a primary depot, his arms should be examined for evidences of a former successful vaccination, and if these evidences are not satisfactory, he should be immediately vaccinated.

As the primary object of a recruiting depot is the military instruction and training of the recruit, it is necessary to inquire how far this object may be made conformable to the requirements of hygiene. Drill, guard duty and police are the chief military employments of the primary depot. Two hours in the morning and two in the afternoon are usually devoted to drill. Heated by the exercise and fatigued by the unaccustomed movements, as soon as released the recruits go to their quarters and lounge upon their beds. The changes in temperature thus suddenly experienced and the check to the cutaneous transpiration are causes of the bron-

chitis, pneumonia and diarrhea from which recruits so severely suffer. If the drill is active and fatiguing, the recruits should not be dismissed whilst in a heated and perspiring state, but the violence of the exercise should be moderated, giving them an opportunity to cool to the normal temperature before the "recall to quarters" sounds. Generally recruits are over-drilled, worried and fatigued, unnecessarily, especially in the beginning of their military experiences, and are hence prejudiced against the business—a mental state unfavorable to progress in any kind of knowledge.

A needless amount of guard duty is not unfrequently imposed upon recruits. There is no duty which so severely taxes the health of raw men as standing guard at night. Such duty is an essential part of a soldier's education, and cannot be omitted, but the amount of it may be lessened, and the ill effects of it may be diminished by the adoption of certain hygienic precautions. The guard barracks or quarters are usually hot beds of disease, being filthy, ill-ventilated, crowded and dark. The apartments for prisoners are in a worse condition, and these unfortunates are not only deprived of liberty but of air, sunshine, water and suitable food.

I have already indicated that lack of personal cleanliness is a common cause of disease amongst recruits. Frequent bathings should therefore be required, and daily inspections of the persons of the men should be made in order to prevent neglect of this important sanitary measure.

5. *Moral Agencies.*—A considerable part of the time of the recruit is unoccupied. His duties are monotonous. If he be not possessed of some mental resources—and few are so endowed—the time hangs heavy and he becomes a prey to ennui and nostalgia. As a relief to the tedium and restraint of his life, the recruit will enter with zest into any dissipation circumstances offer. It is therefore a matter of no small importance to fill up these unoccupied hours with rational amusements. Athletic games and sports should be encouraged by affording the necessary facilities. Those given to reading should have the opportunity afforded them, in a well selected library of readable books. The value and indeed the necessity of providing for the mental wants of recruits will be understood by any one who had the opportunity of seeing the dreadfully licentious books which were circulated so largely in the army during the rebellion.

Under existing habits of military life nothing is more difficult to

accomplish than that particular duty denominated "police." Ideas of degradation are associated with it, because the prisoners in charge of the guard are usually employed for this purpose. At the primary depot every recruit should perform his tour of service in police, not only for the sake of instruction in the duty of cleanliness, but to occupy some of his vacant hours and to make the duty itself respectable, by rendering it obligatory upon all.

6. *The Camp of Instruction.*—The experiences of the recruit at the primary depot are necessarily not of long duration. If his training have not been neglected, he has acquired most useful information in respect to all sanitary questions affecting himself. He may be at once transferred to the field of military operations, or he may be subjected to a further course of military training in the camp of instruction. Here the recruit enters upon a life more nearly allied to the experiences of the soldier.

The camp of instruction is intended to familiarize the soldier with larger military evolutions and to perfect organizations of brigades, divisions and corps. The camp must be situated at a point convenient to the theatre of military operations, and it must have a density of population much greater than the primary depot, in order to accomplish the objects for which it is established. Beside the number of men, the density of population, and the proximity to the seat of military operations, there is no requirement of hygiene proper to the case of primary depots not equally necessary in the camp of instruction. The sanitary evils of the latter are similar to those which we will have occasion to study in the military camps in the field. Troops in permanent camps are more liable to disease than when engaged in active movements, for reasons that are perfectly obvious. In permanent camps they suffer from the effects of crowd-poisoning, bad police, polluted water and contaminated air—evils not so active nor so powerful when camps are frequently changed, and a large extent of country operated upon.

It is of the greatest practical importance that the camp of instruction be not too populous; that it be situated upon ground perfectly well drained and remote from sources of malaria; that the water supply be abundant, neither selenitic nor calcareous, and free from organic matter; that crowding in tents or quarters be avoided; that the diet be sufficient, various and well prepared; that cleanliness of the persons and clothing of the men be strictly attended to; that police of the camp grounds, quarters, kitchens

and latrines be faithfully performed; that systematic sanitary inspections be carried out; and finally, that contagious and epidemic diseases be rigorously excluded. The camp of instruction, indeed, should consist of a collection of primary depots, each a hygienic unit, organized and conducted as herein described.

In a military command so much depends upon the commandant that I may be permitted to make a few observations upon the qualifications of that officer, so far as those qualifications affect the sanitary situation.

The commandant of a primary depot or camp of instruction should be equally removed from the martinet and the totally ignorant militia man. He should be a man of sense, discretion and resolution, but above all, he should possess the attribute of humanity. He should have not only a competent knowledge of the art of training soldiers, but a full acquaintance with the rules and methods of hygiene. Whilst wisely considerate of the feelings of men just drawn from the employments of civil life, he should have the resolution to enforce the sanitary measures necessary to preserve their health.

Wisdom in the construction of depots, elaborate regulations for their management, and abundance of supplies, will avail little if the commandant be a fool.

It may be objected that the plans proposed for preserving the health of recruits are inapplicable because of the expense attending the execution of them. A soldier costs the government of the United States about \$1,000 by the time he is fitted for the field, and that sum is irrespective of bounty or other allowances for inducing him to enlist. Independently of its humanitarian aspects, it is a desirable thing in the pecuniary sense to preserve the health of every recruit. If, during the rebellion, those had been saved by a proper system of hygiene who were lost for the want of it, all the necessary appliances for primary depots and camps of instruction might have been provided, without additional strain upon the resources of the country.

## CHAPTER III.

## THE EXPERIENCES OF THE SOLDIER.

"Is there truth in the statement, that a degree of health which is unusual prevailed in the Union armies during the late war, and that the mortality from disease was much below the average in the great campaigns of Europe?" The solution of this problem is invested with great difficulties, for the reason that there are so many factors, whose precise value can hardly be estimated, influencing the result. Amongst these are epidemics, as cholera; climatic changes; the state of the commissariat and of other departments of the administrative service, etc. All of these should be remembered in drawing conclusions from statistical tables comparing sickness and mortality rates of different armies. Dr. Woodward has fallen into the error, as I conceive, of neglecting to ascertain the importance of these several factors, in the statements made in *Circular No. 6*, about the relative mortality in the United States, French and English armies. "It is thus seen," says Dr. Woodward (p. 94), "that the losses of our troops from disease during the first half of the recent struggle were, proportionally, much less than those of the allied armies in the Crimea." To arrive at this result, he computes the annual losses of the French army in the Crimea at 300 per 1,000 of mean strength. He is, certainly, mistaken in this estimate. I find, upon examination of the report of Marshal Vaillant, Minister of War, that the total number of the French army sent out to the Crimea was 309,268, and of these 227,185 were brought back, making a total loss, including the casualties of battle, desertion, &c., of 82,183. This loss is at the rate of 268 per 1,000 of mean strength for the whole period of 28 months, or a mean annual loss, including killed and wounded, of 119 per 1,000 of mean strength. Let us compare these figures with certain mortality statistics of the U. S. Army:

|                                                                                                | Per 1,000. |
|------------------------------------------------------------------------------------------------|------------|
| Mean annual mortality of the U. S. Army in the Central Region ( <i>Circular No. 6</i> ), ..... | 84.86      |
| Mortality from disease of the U. S. Army in Mexico, .....                                      | 103.8      |
| Mean annual mortality, from all causes, of the French Army in the Crimea, 119.1                |            |

The mortality of the French army included the losses from an epidemic of cholera, gunshot wounds and the killed in action. If we separate these, the result will scarcely justify the congratulatory observations of Dr. Woodward. A juster comparison may, how-

ever, be made between the sickness and mortality rates of the French army in Algeria and those of our army during the rebellion. I find in the *Rapport sur les Progrès de L'Hygiène Militaire par M. Michel Levy, 1867*, the following:

| Year.       | Mortality per 1,000 of mean strength. |
|-------------|---------------------------------------|
| 1862, ..... | 12.2                                  |
| 1863, ..... | 12.3                                  |
| 1864, ..... | 21.3                                  |
| 1865, ..... | 16.3                                  |

Mortality for the first year of the Rebellion, including Atlantic, Central and Pacific Regions,..... 41.45

An instructive comparison may be made between the sickness rates of the French army in Algeria and those of our army for the first year of the rebellion. In 1863, in a mean strength of 54,000, there were admitted 27,500 men to the military hospitals, being in the proportion of 512 per 1,000. In the United States army for the same period the proportion was 2502 per 1,000 of mean strength.

The foregoing figures, rightly interpreted, do not indicate an unusual degree of health in the Union army during the late war. That there has been a marked and rapid improvement in the hygienic condition of armies during the present century, in which we have been rather the rearguard than the vanguard, will appear in the further elucidation of this subject.

In comparing the mortality rates of the U. S. army with those of the British army in the Crimea, Dr. Woodward assigns 232 per 1,000 of mean strength as the mortality rate of the latter. The figures are as follows:

Mortality of the British Army in the Crimea per 1,000 of men strength,.... 232.  
Mean mortality of the U. S. Army for the first two years of the rebellion,... 56.9

Is there any explanation of this extraordinary difference? In the first place, the British army lost 4,513 men by cholera, being one-fourth of the losses by disease. In the next place, the causes of disease were rife during the first winter in the Crimea. All the facts are exhibited in the following extract from the *Report of the Commission appointed to inquire into the regulations affecting the sanitary condition of the Army, Op. cit., p. 31*:

"Throughout the winter of 1854-5 the troops were suffering from work altogether disproportioned to their strength, from broken rest, insufficient clothing and shelter, unwholesome food and want of cleanliness. As the spring advanced, to these causes of disease and mortality were added others arising from want of

drainage and ventilation, and the nuisances resulting from the lengthened occupation of the same ground without sufficient countervailing precautions. Throughout the period of seven months, from October 1, 1854, to April 30, 1855, the rate of mortality rose as high as 600 per 1,000 per annum. But in November and December of 1855, with supplies abundant, food of a wholesome character, and improving sanitary conditions, the rate of mortality per 1,000 per annum had already fallen to 44 and 33; and with huts well drained and ventilated, nuisances removed, and the camps thoroughly cleansed, from January to May, 1856, the rate of mortality of the army in the Crimea per 1,000 per annum fell to 12½, and in May to 8."

With what period in the experiences of the British army in the Crimea shall we compare the mortality rates of the U. S. army? It is perfectly obvious, the conditions being so various, that a comparison of the statistics in the gross and unaccompanied by any explanation would convey no useful lesson. The period of greatest freedom from disease, coincident with the most complete sanitary regulations, may be compared with the mortality rates of our troops serving in the "Pacific Region" where "the conditions approached those of peace:"

|                                                                                                  |                |
|--------------------------------------------------------------------------------------------------|----------------|
| Mortality of the British Army in the Crimea for the five months ending May 31, 1856.....         | 12.5 per 1,000 |
| Mortality of U. S. Army in Pacific Region under conditions which approached those of peace,..... | 10.01 "        |

That climatic conditions, even when no considerable difference exists between the isothermal, isochimenal and isothermal lines to which the troops are habituated, and those in which they serve, exert no inconsiderable influence over the mortality rates, is shown in the differences between the Atlantic and Central regions:

|                                         |              |
|-----------------------------------------|--------------|
| Mean mortality of Atlantic Region,..... | 37 per 1,000 |
| Mean mortality of Central Region,.....  | 85 per 1,000 |

If we take no note of these important factors in the production of army diseases, our statistical statements will possess little value. If we simply compare the mortality rate of our armies as a whole with those of England and France in the Crimea, the result is more favorable to the sanitary state of the former than the facts warrant:

|                                                                                        |                 |
|----------------------------------------------------------------------------------------|-----------------|
| Mean annual mortality of U. S. Army for 1862 and 1863 (excluding Pacific Region),..... | 60.40 per 1,000 |
| Mean annual mortality of English Army in the Crimea,.....                              | 232. per 1,000  |
| Mean annual mortality of the French Army in the Crimea,.....                           | 101.1 per 1,000 |

The recent campaign of the Royal Prussian army, terminating in the decisive battle of Sadowa, furnishes us with statistical data based on experiences more nearly correspondent to those which obtained in the Union army. These figures were procured from an official publication entitled *Die Verluste der Königl. preussischen Armee an Offizieren und Mannschaften*, etc., Berlin, 1866. The campaign occupied one year. Its mortality rates may therefore be fairly compared with the mortality rates of the U. S. army for the first year of the rebellion:

|                                                                                             |                 |
|---------------------------------------------------------------------------------------------|-----------------|
| Mortality from disease in the U. S. Army for the year 1862 (Pacific Region excluded), ..... | 56.36 per 1,000 |
| Mortality from disease in the Prussian Army for the year 1866, ..                           | 11.4 per 1,000  |

The extraordinary difference in mortality, as exhibited in these statistics, is due to causes set forth in Chapter I. of this essay. Whilst the U. S. army was composed, with an insignificant exception, of inexperienced civilians most imperfectly organized and trained, the Prussian military force was drawn from the regular military establishment and from the landwehr of the first ban, the flower of the population. None of the men engaged in this campaign were less than twenty years of age; four-fifths had had the training and experience of two-and-a-half years' service, and all were more or less familiar with the usages and experiences of military life. In addition to the well-selected material of which the Prussian army is constituted, the military administration is the perfection of order, economy and efficiency—qualities the opposite of those which obtained in our army during the rebellion. A considerable part of the mortality in the Prussian army was occasioned by cholera. With this exception, the conditions in the two cases are similar. Certainly no important departure from the isothermal, isochimical and isothermal lines to which the men were habituated occurred in either case. We may therefore, with some confidence, ascribe the superiority in the sanitary condition of the Prussian army, to the excellent administrative service of that army, by virtue of which, not only are recruits carefully trained to bear the experiences of the soldier, but the details of field service are so arranged as to secure the utmost exemption from disease.

The English and French troops in the Crimea were, with a few exceptions, operating in a climate to which they were unaccustomed; an epidemic of cholera attacked them; unusual difficulties were experienced in supplying them; they occupied permanent camps. Corresponding experiences did not happen to our army.



To compare the sickness and mortality rates will not, therefore, furnish the precise information desired. The statistics of individual diseases, occurring under the same conditions, will, on the contrary, indicate the real difference in the state of the armies, and suggest the causes of the differences.

An examination of the sickness and mortality rates has shown the progress of improvement in the hygiene of armies. A comparative statement will exhibit in what army hygienic measures have achieved most successes :

|                                                                                             |       |           |
|---------------------------------------------------------------------------------------------|-------|-----------|
| Mean annual mortality in British Army during fifteen years, ending 1853, .....              | 33    | per 1,000 |
| Annual mortality at present time for all stations about.....                                | 20    | per 1,000 |
| Annual mortality for home stations about.....                                               | 12    | per 1,000 |
| Mortality of U. S. Army in Mexico, .....                                                    | 103.8 | per 1,000 |
| Mean annual mortality for first two years of the Rebellion, excluding Pacific Region, ..... | 60.40 | per 1,000 |

If we compare two periods of the Crimean war, the influence of sanitary regulations is exhibited in the most striking manner :

|                                                                                           |      |           |
|-------------------------------------------------------------------------------------------|------|-----------|
| Mean annual mortality from January to May, 1855, of British Army before Sevastopol, ..... | 600  | per 1,000 |
| Mean annual mortality from Jan. to May, 1856, .....                                       | 12.5 | per 1,000 |

If we compare these figures with our experiences during the first two years of the rebellion, the advantage rests with the British, for although our mortality rates never rose so high, yet the influence of an improved hygiene was never so signally manifest :

|                                                                                    |       |           |
|------------------------------------------------------------------------------------|-------|-----------|
| Mortality for the first year of the Rebellion, including the three regions, .....  | 41.45 | per 1,000 |
| Mortality for the second year of the Rebellion, including the three regions, ..... | 46.44 | per 1,000 |

The most satisfactory statistics, exhibiting the great improvement which has taken place in the last quarter of a century in the hygienic condition of armies, are those of M. Levy (*Rapport sur les Progrès de l'Hygiène Militaire*, op. cit., pp. 8-9) :

|                                                                                                                                            |   |       |          |          |
|--------------------------------------------------------------------------------------------------------------------------------------------|---|-------|----------|----------|
| Mean annual mortality per 1,000 of mean strength<br>of the French Army at home and in Algiers for<br>the five years ending 1846,           | } | Home. | Algiers. |          |
|                                                                                                                                            |   | 18.6  | 63.9     |          |
| Mean annual mortality per 1,000 of mean strength<br>of the French Army at home, in Algeria and in<br>Italy for the four years ending 1866, | } | Home. | Italy.   | Algeria. |
|                                                                                                                                            |   | 9.85  | 14.47    | 15.55    |

M. Levy attributes the improved hygienic condition of the French army to the improvement in the housing, food, clothing, exercises,

in a few words—"to all the details of the hygienic *régime*." We have seen that the same hygienic means accomplished a marvellous work in the British army in the Crimea. It becomes necessary, therefore, to study somewhat more in detail the nature and *modus operandi* of these hygienic means for improving the sanitary condition of armies.

Statistics prove, that the military hygienist has not so much to fear from fatiguing marches, exposure to the vicissitudes of the weather and climatic changes, and the sometimes scanty diet of troops in the field, as from the sanitary evils of permanent camps and barracks. This statement is exemplified in the following:

|                                                                                               |                |
|-----------------------------------------------------------------------------------------------|----------------|
| Mortality of the British Army before Sevastopol during 22 weeks,<br>ending May 31, 1856,..... | 12.5 per 1,000 |
| Mortality of the British Infantry when quartered in England.....                              | 17.9 per 1,000 |
| Mortality of the Guards when quartered in England,.....                                       | 20.4 per 1,000 |

In the field the mortality from disease is much greater than from the casualties of battle. This fact is shown in the statistics of the first two years of the rebellion by a comparison of the miasmatic diseases alone with injuries:

|              |                                      |         |
|--------------|--------------------------------------|---------|
| First year.  | { Cases of miasmatic diseases,.....  | 436,717 |
|              | { Cases of wounds and injuries,..... | 44,886  |
| Second year. | { Cases of miasmatic diseases,.....  | 973,758 |
|              | { Cases of wounds and injuries,..... | 98,475  |

The usual ratio between the losses by disease and by the casualties of battle was not observed in the late campaign of the Prussian army. The following are the statistics:

|                            |        |
|----------------------------|--------|
| Total deaths,.....         | 10,877 |
| Deaths from disease, ..... | 6,427  |

These figures reflect the highest credit upon the administrative service of the Prussian army.

In the Crimean war the losses of the British army were in the following proportion:

|                                               |        |
|-----------------------------------------------|--------|
| Losses from sickness,.....                    | 16,211 |
| Losses from wounds (not including killed),... | 1,761  |

In the period embraced from October, 1854, to April, 1855, having a mean strength of 23,775, the losses from sickness were 9,248, and from wounds only 608. According to M. Scrive, during the same period, the admissions into the French field hospitals were 15,500, of whom 14,000 were for diseases and 1,500 for wounds.

According to Circular No. 6, the mortality from wounds was, for the first year of the war, 16.7 per 1,000 of mean strength, and for the second, 15.7 per 1,000; whereas, the mortality from sickness (excluding the Pacific region) was, for the first year, 80.40 per 1,000, and for the second, 65.77 per 1,000. The usual ratio of sickness to wounds is as 10 to 1, and this proportion existed in the Union army. The proportion is very nearly the same for the British army in the Crimea, if the calculations are made from the statistics of the whole period. So far, then, as these figures prove anything, they do not exhibit an unusual degree of health in our army during the rebellion.

The sources of danger to the health of soldiers are manifold. As respects the troops of the United States we have, in a Sanitary Commission document (*No. 41. Two Reports on the condition of the military hospitals at Grafton, &c. Asst. Surgeon W. A. Hammond, U. S. A.*), some striking statements of the causes producing disease during the rebellion. I have, myself, repeatedly observed the same facts, but for obvious reasons, I prefer to employ in illustration of my argument the statements of others:

"The 55th has been five months in service, and has been stationed at Grafton since the 17th of February. The camp is located on a knoll on the south side of the river, and as far as situation goes, it may be considered advantageously placed. The soil and subsoil are clay, which is bad on account of its retaining moisture for a long time. At present the mud is six or eight inches deep all over the camp ground.

"The tents are in a very bad state of police, and for a permanent camp overcrowded. They contain from ten to fourteen men each. The effluvia from them on entering was stifling. The straw is changed once a week. The tents have not been struck since the regiment has been at Grafton, and consequently, the ground over which they are pitched must be reeking with gaseous emanations from the men. They are partly floored; the boards are not placed upon joists, but directly on the ground.

"The camp sink is located between the tents and the river. It is covered with fresh earth twice a week, when the medical officer specially sees to it. The men, generally, however, make use of the ground in the vicinity. \* \* \* The men are now inhabiting a space of 30,000 square yards, and the population of the camp is at the rate of 1,000,000 to the square mile. \* \* \* \*

"The measles appeared in this regiment on the 13th of February.

At that time 165 men of the command had never had that disease; of this number 100 have since had it. The probability is, that unless something is done to arrest its progress the remaining 65 will have it. There has been a good deal of other sickness, consisting principally of chest affections, diarrhea and dysentery. At present there are, as near as can be ascertained, 120 sick; which, in a force of 950 men, is excessive. Since the regiment has been at this place ten men have died; one of typhoid fever, one of pneumonia, and eight of measles."

Macleod (*Notes on the Surgery of the Crimean War*, p. 34) thus graphically describes the influences affecting the health of the British army in the Crimea:—"Day after day passed in severe bodily exertion and anxious watching—one moment digging laboriously in extending the approaches, and the next with arms in hand repelling the assaulting enemy; almost always wet; exposed without cover to the drenching rain and soaking snow, the keen frost and biting wind; standing for days in wet mud; constantly either unnaturally excited or depressed; ever in danger, and without hope of a change; their dirty, humid clothing in rags, their bodies covered with loathsome vermin which seemed to grow out of their very flesh; no comforts in their wind-pierced tents on the bleak plateau; no fires unless, weary and footsore as they were, they dug beneath the snow-covered sod for wet roots wherewith to kindle a feeble and tantalizing blaze; without food till, after hours of persevering exertion, they managed to half cook their unpalatable ration over their winking fire; huddled into a crowded tent to pass the night in a close, noisome atmosphere, on the oozy ground, covered by the same blanket which protected them in the wet and muddy trenches." Miss Nightingale, in her replies to the questions of the "Commission appointed to inquire into the regulations affecting the sanitary condition of the Army," states as follows (page 362, Evidence):

"During November, December, 1854, January and half February, 1855, the prevailing diseases were of the scorbutic type, viz.: diarrhea, dysentery, frost-bite, rheumatism, such diseases as generally arise from bad food, deficient clothing, fatigue, exposure and damp. During the latter part of February, March, April, 1855, the scorbutic type declined; and diseases of the malarial type, typhoid, continued and remittent fever, dysentery, diarrhea and cholera began to prevail—to a great extent the result of bad drainage, bad ventilation, overcrowding, nuisances, organic effluvia, malaria and damp."

In the foregoing facts we discover a clear indication that the primary evil to be overcome by the military hygienist is *crowd-poisoning*. Under this term may be included crowding, deficient ventilation, bad police, lack of personal cleanliness—all of those hygienic evils, indeed, growing out of the accumulation of men in large numbers on a space of ground inadequate for the purpose, and unprovided with the appliances necessary for maintaining them in good sanitary condition. Next in importance to crowd-poisoning we have *malaria*, and then *scorbutus*. The simultaneous action of these causes induces a *composite morbid state*, in which the influence of each cannot be exactly determined. In addition to this compound morbid cause, various contagions and epidemics affect the health of armies: *eruptive fevers*, *continued fevers*, *dysentery*, *cholera*, etc.

*Crowd-poisoning and the means of prevention.*—The evils of crowd poisoning become manifest immediately upon the concentration of troops in camps preparatory to field operations, and they increase with the lengthened occupation of the same ground. Active movements, by distributing the men over a larger extent of country and by bringing them continually in contact with fresh air, diminish the evil effects of crowding. All observers agree that troops on the march are much less affected by the various forms of camp diseases; that, indeed, the percentage of sickness and mortality is reduced somewhat below that of the same ages in civic occupations; but when the movements cease the sickness rates rapidly increase. On the march the men have every variety of muscular movement; frequent changes of scene stimulate the imagination, and no camping ground is occupied a sufficient length of time to become poisoned by the excreta of its occupants. In the permanent camp much of the time is spent in idleness; the drill and other duties are monotonous, and the crowd-poisoning quickly inaugurated, progressively extends its influence and increases in intensity with the length of occupation. It is obvious, therefore, that a permanent camp will require much greater space for each tent than a temporary camp, but no considerations of hygiene, conflicting with the military necessity, can be entertained when the camp is to be established in the presence of an enemy. As the lives of troops are risked in battle when an object is to be accomplished, so, also, they may be risked by exposure to the causes of disease, if, by so doing, the desired success may be achieved. Such is Vegetius' idea of the duty of a soldier: *cui necessitas belli incumbit et morbi*.

According to the regulations of the U. S. army "each company has its tents in two files, facing on a street perpendicular to the color line. The width of the street depends on the front of the camp, but should not be less than 5 paces. The interval between the ranks of tents is 2 paces; between the files of tents of adjacent companies, 2 paces." This is a density of population, for the enlisted men, of about 800,000 per square mile, but as 22 paces are permitted between regiments, for the whole of a division or corps encamped at the same rate, the density of population would be about 400,000 per square mile. This rate of density of population is nearly ten times greater than obtains in New York, a city well paved and drained and provided with other appliances of hygiene not at all attainable in a military camp. A similar degree of crowding was provided for in the camping regulations of the British army in the Crimea. "The Quartermaster General's instructions for camping, issued at the commencement of the Crimean war, authorized densities of population on the camp surface equal to 347,000, 348,000 and 664,000 inhabitants per square mile. The lowest of these densities is double that of the most densely populated district in England. It includes not only the ground actually covered by tents, but all the open spaces in camp. The ground actually covered by tents in these plans of encampment gave a density of population equal to 1,044,280 per square mile."—(*General Report of the Commission appointed to Improve the Sanitary Condition of Barracks and Hospitals*, p. 168.)

During our late war there existed the most flagrant violations of the principle of expansion in the arrangement of permanent camps. The degree of crowding, authorized in regulations, was generally exceeded. If a sufficient area were occupied by the armies as a whole, individual regiments, brigades and divisions were compressed into the narrowest limits, leaving wide interspaces unoccupied. This vicious method of camping troops was well seen in the winter camps of the Army of the Potomac, and of the Army of the Cumberland. In all of these instances, there appeared no strategical or other military reasons for having a uniform density of population greater than 40,000 per square mile. This should be considered the maximum density under the ordinary circumstances of permanent or winter camps. This rate of density would give each man 87 square yards, assuming that the distribution of the command was uniform over the whole area included within the boundary of the camp. Unfortunately, this was not the case. The force

encamped at Chattanooga during the winter of 1863-4 occupied, in the aggregate, a space greater than that which we have indicated, but individual regiments and brigades were compressed within limits almost incredibly small—in many instances encamped at the rate of more than a million per square mile. Military necessity could not be urged in extenuation of this extraordinary violation of the rules and principles of hygiene, for ample space existed within the limits of the works erected for defence to permit a density of population less than 40,000 per square mile. The effect of this disregard of hygienic considerations was exhibited in the increased number of cases of fever, pneumonia, dysentery, etc., and in a greatly increased mortality. The excessive crowding of the British army in the Crimea was an efficient cause in the production of that fearful mortality which occurred from October, 1854, to April, 1855.

Crowding is seen, not only in the accumulation of men at a given point, but in the number assigned to each tent or hut. This is an evil in many respects more fatal than the preceding. If a military man, familiar with the facts, be asked—What was the most admirable feature of the winter camps of our various armies during the war?—he would reply, most probably—The skillful manner in which the men protected themselves against the vicissitudes of the weather by building huts. Unfortunately for the military enthusiasm on this subject, it is certainly true that these huts were erected in opposition to the plainest requirements of hygiene. They had no windows, no arrangements for ventilation, and were so crowded that the occupants had not, in most instances, 60 cubic feet of air space. Ponchos and shelter tents, which they used in active movements, would have been vastly better in the hygienic sense.

What are the best means of sheltering men in a winter camp? As the length of time for which such a camp is occupied on this continent does not exceed, on the average, five months, it is not desirable to erect any but the most temporary structures. If the material exist on the ground, or in the vicinity, suitable for the purpose, huts may be erected upon the plan already suggested for the primary depot. Ridge ventilation, ample window space to insure sufficient light, and a capacity to permit each man 800 cubic feet of air space, are the requisites in such structures. A serious objection to huts as usually built, is the lack of light, and this deficiency is associated with a corresponding one—want of air. The occupants of these dark and ill-ventilated huts, as was ob-

served in the Crimea and during the rebellion, become pale and anæmic, and feeble and emasculated in mind as weakened in body. The huts should be so arranged as to permit the free circulation of air around them, and to have the sunshine on each side. The floor of the hut should not be placed immediately upon the ground, but a space should be left to allow the air to pass under it, and the boards should be movable, to permit the ground beneath to be occasionally cleaned. If a wooden floor cannot be placed for want of material, the soil should be removed and clean sand or gravel be substituted, and this should be renewed frequently. The ground within the hut should be well drained, and a deep trench should be dug around the hut to carry off the moisture and rain water. Drains and trenches should also be dug to cut off the surface water flowing from higher ground. The best means of warming the hut is by an open fire-place, connected with an underground flue reaching several feet beyond the walls.

If materials for building huts be not available for winter and permanent camps, tents must be used for sheltering men. Of these, patterns almost innumerable have been proposed to supply the hygienic necessities. The Sibley tent, the bell tent, the tent d'abri, the wedge tent, may each and all be used: the pattern of the tents, as already intimated, is of less importance than attention to the amount of air-space available for each individual occupying them. The Sibley tent is 18 feet diameter at the base, 13 feet high, conical in shape, and having an opening at the top, guarded by flaps, for ventilation and to permit the escape of smoke. This gives a capacity of about 1,100 cubic feet, in which space fifteen men are crowded—an allowance less than 75 cubic feet of air-space per man. The wedge tent has a cubic space of about 400 feet, which is considered sufficient for six men. I need hardly occupy space with details about the exceeding unhealthfulness of such extreme crowding. The simple shelter tent, used for protection on active campaigns, would be preferable for a permanent camp, notwithstanding the exposure incident to their employment.

A serious hygienical evil, arising from the lack of space and the close contact of men in winter camps, is the little attention paid to the personal cleanliness of the men. Their clothing is never removed; their blankets become saturated with organic emanations; and their skin becomes loaded with cast-off epidermia, sebaceous matter and dirt. Huts should be erected, or tents pitched, and arranged as lavatories. Close, daily inspections of the persons of



the men should be made, to insure attention to the very important matter of personal cleanliness, and stringent regulations with regard to bathing be enforced.

The hut or tent, immediately after reveille, should be thrown open to the external air; the blankets should be exposed to the sunlight; the floor and walls should be swept, for which purpose a bundle of twigs makes an excellent broom. Every week the flooring should be removed and the ground cleaned; if there be no flooring, the sand should be frequently renewed. If lime can be procured, both the exterior and interior of the hut should be whitened once a month. Occasional fumigations with sulphurous acid, nitrous acid or chlorine, should constitute a part of the hygienic means, and if these agents cannot be procured, wood smoke may be used, which is more or less effective as a disinfectant, because of the pyroligneous and carbolic acids which it contains. Tents should be subjected to the same general treatment. In addition, they may be frequently moved upon fresh ground. Straw should not be used unless a sufficient quantity be procurable to permit it to be changed once a week, and if used, it should not cover foul earth or other nuisances. The ground about the hut or tent quickly becomes saturated with urine, slops or kitchen offal, if the strictest supervision is not maintained by sanitary officers. The men will, despite of every precaution, urinate about their quarters at Tattoo and Reveille. It becomes necessary, therefore, to remove the surface occasionally, and apply fresh earth or sand. The ditches and sewers for draining the camp should be carefully constructed, and made to empty at a point remote from the sources of water-supply. The slops from the kitchens and the surplus water from the lavatories should be conveyed at once to the sewers, and should not be thrown upon the ground under any circumstances. To prevent the sewerage soaking into the ground, the drains should be lined with smooth, flat stones, tiles, or with roughly hewn logs of wood.

One of the first and most important considerations to engage attention in establishing a camp, is to arrange suitable latrines sufficiently near to be readily accessible, and yet remote enough to prevent contamination of the air by the privy gases. They should be placed to the leeward of prevailing winds, and under cover of an eminence, if the nature of the ground will permit. For winter camps, or temporary camps during active operations in the field, but one kind of latrine can be constructed—the pit. This,

however, may be so arranged as to be but little objectionable. It should be deep rather than wide; a substantial log frame should be placed around it to support the seats; two rows of comfortable seats should be provided for each pit, and the seats should be separated by a partition or screen; the whole arrangement should be inclosed by a covered stockade. Every morning a layer of fresh earth and charcoal should be thrown over the ordure to the depth of three inches. Freshly-burned charcoal should be used for this purpose; it can always be prepared in the neighborhood of the camp by burning under earth the boughs of the trees used for fire-wood. The ashes from the kitchens and camp-fires is, also, a most useful material for the deodorization and disinfection of latrines. Beside these means, the commissariat should be supplied with the sulphate of iron and impure carbolic acid for the more permanent disinfection of cess pools, more especially if specific products are known to be present.

As a large part of the meat ration furnished an army is in the form of animals "on the hoof," the necessary butchering shambles may be so conducted as to contaminate the air and the water supply. The utmost cleanliness, hence, should be observed in these places; the slops and blood being made to discharge into the stream or river below the camp, and the intestines and refuse being burned or buried.

Unless special and enlightened care is exercised, the camp ground becomes the receptacle of every conceivable kind of filth. A daily system of police work, carried on by a large number of men under competent direction, is absolutely necessary to preserve a cleanly condition of the camp. As ordinarily performed police work is spasmodic, irregular, and especially deficient in that necessary element—knowledge of the laws and requirements of hygiene. Every army should be provided with its sanitary officer skilled in the theory and practice of hygiene, whose exclusive office it should be to ascertain the causes of disease, and to indicate the means of prevention necessary. His subordinates, possessed of similar qualifications, should have a place in the organization of corps, divisions and brigades. It has been sought to accomplish this object by investing the medical department of the army with advisory powers based upon knowledge gained in inspections, but a mere advisory power is of little value. If details of men were furnished, and the execution of the sanitary work intrusted to medical officers, then their special knowledge of health affairs would produce

tangible results. A sanitary police, commanded by line officers and working under the direction of the senior medical officer of the army, corps, division or brigade, would fulfill all the requirements of the case.

*Malaria.*—One of the most important causes of disease, at least in many countries, against which sanitary measures must be directed, is that specific morbid cause—malaria. This is an influential element in that tripartite morbid state to which reference has already been made. The influence of this cause is shown in the statistics of the first two years of the late war:

|                                 |         |
|---------------------------------|---------|
| Cases of malarial disease,..... | 386,570 |
| Deaths therefrom,.....          | 3,325   |

The British army in the Crimea suffered to a very limited extent from malarial poisoning; the French army much more severely, but we have no satisfactory statistics in relation to the prevalence of paludal diseases in the latter. In the late Prussian campaign malaria does not appear to have been a cause of disease, for the mortality was due, chiefly, to cholera and typhus (typhoid).

The effects of the sudden impression of large quantities of malaria upon the organism, producing febrile phenomena, are to be distinguished from the chronic malarial poisoning—a state in which certain changes have been slowly induced in organs without the occurrence of fever. These changes consist in a thickening of the solitary glands of the intestinal canal, pigment deposits in the mouths of Lieberkuhn's follicles, an enlarged and fleshy state of the spleen, and a fawn color of the liver, and are characterized, objectively, by a peculiar bronzing of the integument, leanness, and more or less diarrhea. In these cases, periodical fever is not apt to occur unless some traumatic injury or change in climate make some unusual impression on the organism. The alternations described in the glandular apparatus of the intestinal canal constituted the basis of some of the most intractable cases of camp diarrhea, and the subjects of them were exceedingly liable to grave intercurrent diseases. The importance of this state of chronic malarial poisoning can hardly be over-estimated, for it involved not only the immediate changes I have described, but such serious secondary affections as camp diarrhea, intercurrent pneumonia, pleuritis, ascites, etc. It is, therefore, a hygienic question of great importance, to determine by what methods the effects of malaria may be lessened or prevented. The chief causes which aid the

action of malaria are excessive fatigue, night duty, insufficient and improper food, camping in unwholesome situations, *ennui*, etc.

*Healthy and vigorous men, having good habits of body, and cheerful of mind, and officers who enjoyed more nutritious diet and other comforts, were not nearly so subject to malarial poisoning.*

It is evident that many of the causes which aid the action of malaria are inseparable from the conditions of military life, and hence, can be obviated but in part by hygienic measures. Operations of armies in malarious regions may be so managed as to lessen the dangers of malarial poisoning. Long marches may be so conducted as to render the fatigue and exhaustion less complete; night duty may be so arranged as to relieve it of much of its needless exposure; a suitable dietary may be provided, and a wise foresight insure a regular and uniform supply; the camp may, generally, be selected with a careful reference to the requirements of hygiene; in camp, systematic gymnastic exercises, games, and other employments, may take the place of the horrid tedium and *ennui* which so assail the soldier without occupation.

Instead of these wise hygienic measures, which would diminish, if not prevent, the effects of malaria, and would also benefit the sanitary condition in other respects, attention has rather been directed to the use of medicinal prophylactics. During the late war, the prophylactic virtue of quinia was tested on a large scale. Although the evidence of its power in this respect is conclusive, yet the facts warrant me in saying, that no measure of medicinal prophylaxy is equal to, or can be substituted for, those measures of hygiene just indicated as necessary. Quinine loses its power by long continued use. Its anti-periodic power is not exhibited satisfactorily in cases of chronic malarial poisoning, and hence, its prophylactic power is feeble in the same morbid state. As a result of considerable observation on this point, I venture to propose the following rules regarding the use of quinine as a prophylactic:

It should be reserved for occasions of exposure to malaria of unusual amount and intensity.

It should be administered alone and with great regularity.

Five grains daily is the minimum allowance.

As a common and ordinary means of protection from malarial poisoning in addition to those hygienic precautions I have named, the liberal use of hot coffee is of the greatest value. Soldiers on guard, and troops on outpost or picket duty, in malarial regions, should be furnished with an abundant supply of black coffee, to be

taken freely during night service and in the early morning. So, also, all military commands serving in malarial regions should be provided by the commissariat with sufficient coffee to permit its use under all circumstances of unusual fatigue, exposure or climatic changes.

*Scorbutus*.—Defective alimentation enters largely into the production of scorbutus, but a variety of causes retard or prevent its action. Troops on a meager diet, in permanent camps situated in unhealthy localities, closely confined in dark, ill-ventilated huts and suffering from *ennui*, are much more liable to that peculiar form of degeneration of fluids and solids known as the “scorbutic taint,” than troops on the same insufficient diet, actively engaged in military operations and stimulated to new exertions by past successes. This statement is well exhibited in the returns of the sickness and mortality of the British army, for the six months from October '54 to April '55, and for the last six months, of the occupation of the Crimea :

|                                                                        |        |
|------------------------------------------------------------------------|--------|
| Average strength, .....                                                | 28,628 |
| Cases of scorbutic diseases for one month, January, 1855, .....        | 7,761  |
| Deaths from scorbutic diseases during same period, .....               | 2,252  |
| Ratio of cases of scorbutic diseases per 1,000 of mean strength, ..... | 270.   |
| Ratio of deaths from scorbutic diseases per 1,000 of cases, .....      | 288.   |

Sir A. Tulloch computes the losses from all forms of diseases for six months (Oct. '54 to April '55) at the rate of 800 per annum per 1,000 of mean strength—almost one-half being, as the above figures show, from scorbutic diseases. In the last six months, however, we find that the mortality rate was reduced to 11.5 per 1,000 of mean strength. We have, in these figures, the result of an improved hygiene—habitation, diet, drainage, etc.—and the important successes which led to the conclusion of the war.

If we compare these statistics of scorbutic diseases in the British army in the Crimea, with the returns of scurvy for the first two years of the rebellion, we observe a remarkable difference :

|                                                                                          |           |
|------------------------------------------------------------------------------------------|-----------|
| Ratio of scorbutic diseases per 1,000 of mean strength for }<br>the month of Jan., 1855, | ..... 270 |
| Mean annual ratio of scurvy in Union Army for 1862-3 }<br>per 1,000,                     | ..... 9   |

These figures, taken as they stand, without explanation, would justify the enthusiastic comments of Dr. Woodward (*Circular No. 6, p. 184*). “This extremely small number of cases of scurvy is unparalleled in the history of armies.” Closer analogies will re-

veal how little justification there was, really, for this outburst of enthusiasm. If we take the figures for *scurvy alone*, as given in the returns for the Crimean war, we find, that during the worst period (month of Jan., 1855) there occurred 542 cases, being at the rate of 18 per 1,000 of mean strength; if, however, we include the year, the ratio is much reduced.

Under the term, scorbutic diseases, for the month of January, 1855, are included dysentery, diarrhea, rheumatism, frost-bite and scurvy. If we include the same forms of diseases occurring in the Union army under the same designation, the figures would approximate closely to those of the six months (Oct., 1854, to April, 1855)—the fatal period in the experiences of the British army in the Crimea.

As defective alimentation is the principal cause of scorbutus, great efforts have been made in modern times to arrange a proper dietary for troops. The problem to be solved may be expressed as follows: the necessary components of the ratio being known, in what form can these be furnished to troops? Certain nitrogenous (albumen, fibrin, casein, legumin, gluten, &c.) and fatty substances (animal and vegetable oils), carbo-hydrates (starch, sugar and gum) and salts (potash, soda, lime, iron, phosphorus, chlorine, &c.), are necessary constituents of a ration for troops. They must be afforded in such a state as to resist the action of climate and time.

I have already made a study of the U. S. army ration as applied to the nutrition of recruits, and have shown in what respects it may be amended. The changes suggested involved chiefly the vegetable part of the ration, but as the additions proposed included very destructible and not very portable articles, such alterations would not be suited to the requirements of field service. To ascertain what form of food is best suited to the conditions of the soldier's life, we must first fix the number of ounces, daily allowance, of the several constituents necessary to preserve him in a good sanitary state. The minimum gross allowance may be placed at 40 ounces and the maximum at 60 ounces. The ration of the British army in the Crimea was as follows:

|                                              | Lbs. | Oz. |                   | Lbs. | Oz.           |
|----------------------------------------------|------|-----|-------------------|------|---------------|
| Bread, or .....                              | 1.   | 8   | Sugar, .....      | 0.   | 2             |
| Biscuit, .....                               | 1.   |     | Coffee, or .....  | 0.   | 1             |
| Meat, .....                                  | 1.   |     | Tea, .....        | 0.   | $\frac{1}{2}$ |
| Rice, .....                                  | 0.   | 2   | Lime juice, ..... | 0.   | 1             |
| $\frac{3}{4}$ gall. of Rum.                  |      |     |                   |      |               |
| $\frac{1}{2}$ oz. Salt, }                    |      |     |                   |      |               |
| $\frac{1}{2}$ oz. Pepper, } for every 8 men. |      |     |                   |      |               |

This made an aggregate of about 46 ounces gross solid nutriment. The French army ration in the Crimea consisted of—

|                        | Lbs. | Oz. | Dr. |                          | Lbs. | Oz. | Dr. |
|------------------------|------|-----|-----|--------------------------|------|-----|-----|
| Bread and biscuit, ... | 1.   | 15. |     | Salt, ....               | 0.   | 0.  | 9   |
| Biscuit, .....         | 1.   | 7.  | 6½  | Coffee, ...              | 0.   | 0.  | 9   |
| Fresh beef, .....      | 0.   | 10. | 9½  | Sugar, ...               | 0.   | 0.  | 11½ |
| Salt pork, .....       | 0.   | 8.  | 7½  | Wine, 1½ of a gill.      |      |     |     |
| Rice or Beans, .....   | 0.   | 2.  | 1½  | or Brandy, 1½ of a gill, |      |     |     |

which makes an aggregate of about 44 ounces in the gross. The peace ration of the U. S. army was about the same as that of the English and French armies in the Crimea, but during the rebellion it was so much increased as to contain at least 8 ounces more than that previously allowed. This fact may explain in part the less amount of the scorbutic element in the diseases of the Union army during the late war, than existed in the British army during a part of the service in the Crimea, but there were other important influences at work, as will appear in the further consideration of this subject.

As the 40 or 60 ounces of solid food contain a certain quantity of water and loss, the amount available for the nutrition of the body is not more than 50 per cent. This nutrient material should consist of the following:

|                                             |        |
|---------------------------------------------|--------|
| Nitrogenous substances (albuminates), ..... | 9 oz.  |
| Fats, .....                                 | 7 oz.  |
| Carbo-hydrates (starch, sugar, &c.), .....  | 11 oz. |

These quantities and articles, however suitable theoretically, do not embody all that is found to be necessary for maintaining the health of troops. Practical experience has shown that something more is requisite than a mere supply to the soldier of the necessary constituents as shown by ultimate and proximate analysis to be necessary, and which may be provided in small bulk and in an unchangeable form. It is necessary that there be a certain variety even of foods possessing the same components, and that the ingesta have sufficient volume. Variety in form and in taste has not been sufficiently regarded in making up diet tables for troops.

*Une bonne alimentation consiste dans la variété et la bonne qualité des denrées plus encore que dans leur quantité.*—(*Instruction du Conseil de santé des armes.*)

The essential elements of food contained in fresh beef do not exist in so available a form in any other article. Hence, that is a most judicious regulation of the U. S. army which permits the use

of fresh beef as many days in the week as the commanding officer may direct. Under the conditions of military experience, as seen on this continent, salt meat need rarely be issued to troops more frequently than twice a week, for beef cattle can usually follow the march of an army with little difficulty. As variety in the diet is essential, sufficient salt meat should be allowed for two days in each week. Variety we hold to be necessary even at the expense of the loss of some nutritive material. Salt meat, according to Liebig, loses from 30 to 50 per cent. of its nutritive value in the process of curing. This loss has been practically demonstrated by Mr. Whitelaw (Chemical News, March, 1864), who has shown, that by the process of dialysis, extract of meat may be obtained from brine, and he proposes to utilize this discovery by mixing the extract thus obtained with flour to form meat biscuit. We have, in these facts, an explanation of the production of scorbutus by the use of salted foods; the result is due not so much to the excess of salt as to the deficient nutritive value of meat cured by this process—the deficiency not being made up by the addition of corresponding vegetable constituents.

For quick movements, the troops carrying their own rations, it may be impracticable to convey fresh beef "on the hoof," and hence bacon is the best substitute, both by reason of compactness and adaptation to the tastes of the soldier. The meat biscuits and the condensed essences which have been proposed from time to time, although sufficiently portable and nutritious, are not palatable and hence cannot be substituted for bacon. As has been remarked, troops engaged in active field movements, are more healthy than those remaining in permanent or winter camps, notwithstanding they have a less nutritious diet. The bad hygiene of the camp, lack of mental and physical employment, the horrible *ennui*, are more to be dreaded than the imperfect diet and exposure of the field.

If we would derive the greatest amount of nutritious value from the material, it is important that correct hygienic principles govern the cooking of the beef. Generally speaking, for military purposes, but two methods are proper: boiling and stewing. Unfortunately, on account of the convenience of the operation, frying is the method of cooking beef most popular with the soldiers. The processes of boiling and stewing involve certain principles of so important character, that they should be carefully instilled into the minds of the cooks in course of training at the primary depot. Beef is boiled



with either of two objects, in view: to make soup, or to serve as boiled beef. The process will be different in each case. In the preparation of soup the beef should be put into cold water and the temperature be slowly raised and maintained at 150° F.—a degree of heat which should not be exceeded. When the meat is to be served as boiled meat, it is of course desirable to retain as much of the salts and extractive matters as possible; to accomplish this, the meat in large pieces, should be plunged for five minutes into boiling water to coagulate the albumen of the exterior; after this it should be cooked in water at a temperature of 180° F.

In the process of stewing—as in the preparation of soup—it is essential that the heat be not too great, and that the cooking proceed slowly. Vegetables and condiments may be added to increase the sapid and nutritive qualities.

Next in importance to the animal part of the ration, is the vegetable, consisting chiefly of flour (wheat and corn), rice, beans, potatoes, etc. Flour is the chief in respect to nutritive value and adaptation to the taste. Troops in permanent camps are supplied with flour, and on the march with hard bread. Not unfrequently, flour is issued in bulk to the companies, and then distributed to the men who bake it, or, as often happens, fry it in bacon fat after a method peculiarly military. Serious evils result from this system. Much of the nutritive material is lost in the process of cooking it, and an indigestible mass remains, which produces intestinal disorders. Hard bread (biscuit) has the advantage of portability and freedom from change, but it quickly palls on the appetite and deranges digestion. The long continued use of it, during the rebellion, was unquestionably a cause of camp diarrhœa and of the scorbutic cachexia, but this cause had not by any means the degree of importance assigned to it by Dr. Salisbury of Ohio, who in a report to the Surgeon General of that State, ascribed the production of camp diarrhœa, chiefly to the use of hard bread. Under ordinary circumstances, no necessity exists for the prolonged use of hard bread. Fermented bread can be prepared and issued by the commissariat at all permanent camps, and generally, during the most active movements of an army in the field. Portable ovens have been constructed and successfully used. There appears no reason why these cannot follow the movements of an army, as readily as the forges which the military authorities find it necessary to transport. More or less difficulty is usually experienced in preparing fermented bread in the field, owing to the various hindrances to

the process of fermentation. Field bakeries—portable ovens—should be provided with Prof. Horsford's baking powder, which consists, as is well known, of phosphoric acid, acid phosphate of lime and bi-carbonate of soda. This, mixed with the flour, furnishes carbonic acid for giving lightness and other peculiar qualities to the dough, and also, notable quantities of phosphates of soda and lime, salts having important relations to the nutrition of the body.

In the use of bread, the importance of change and variety should not be overlooked. Kiln-dried corn meal should constitute a part of the flour ration. As the corn is richer in fatty matter than the wheat, the diet would be improved not only in respect to variety, but also to quality.

The remaining components of the soldier's food, chiefly rice and beans, contain a large quantity of starch. Beans are theoretically desirable because they have about 20 per cent. of a nitrogenous substance, called legumin, combined with sulphur and phosphorus. About one-half of the nutritive material of the diet of soldiers, consists of starch. This quantity is in excess of the requirements of the organism, and is therefore an evil. The strong tendency to disease of the glandular apparatus of the small intestines which exists among troops in the field, especially when serving in malarious regions, renders the use of so much starchy food prejudicial, for the physiological reason, that the digestion of this part of our food is accomplished by the secretion of these glands, (intestinal juice). Rice contains 70 per cent. of starch and beans 50 per cent. For this reason beans are to be preferred to rice; but serious objections exist to the former, in that they are difficult to prepare properly, indigestible in consequence of the insoluble nature of their contained starch, and provocative of intestinal disorders because of the quantity of residual matters. I have seen such strong evidences of injury from the use of beans, that I have no hesitation in declaring them unsuited to troops on active campaigns. If on account of the portability and unchangeableness of rice and beans they must enter into the composition of a ration for troops, they should at least be reduced in amount. They should be retained in smaller quantities, to give that variety to the diet, which is so essential to the taste and to the proper performance of digestion. The potato should form a part of the ration for soldiers. This vegetable contains, in addition to an easily digested starch, certain vegetable acids of great value in the prevention of scorbutus. According to

the U. S. Army Regulations, "one pound of potatoes per man shall be issued at least three times per week if practicable." This is an excellent regulation, and generally quite practicable, but the allowance is too small; one pound daily ought to be issued, for the potato contains about 75 per cent. of water.

It is not always possible to procure and transport in its natural form, the vegetable food indicated above. Our hygienic appliances must be arranged to compass these contingencies of wars and military campaigns. Fortunately the progress of modern art, has put us in possession of means of so condensing food as to render its preservation and transport comparatively easy. Mixed vegetables, consisting of potatoes, turnips, carrots, peas, cabbage, etc., are prepared by desiccation to resist the action of climatic changes and so compressed that a large amount of nutritive material is contained within a comparatively small compass. Desiccated potatoes are prepared in the same way. The points to be attended to in cooking these desiccated vegetables, are these: they should be soaked in cold water several hours and then be slowly boiled or steamed. Eaten simply boiled, they are not palatable, but as constituents of a soup or stew, they are most excellent. During the rebellion, strong prejudices existed against these articles, for the reason that improper modes of cooking rendered them unpalatable, and hence they were not used as freely as they should have been. Conclusive testimony has been published (*Medical Statistics U. S. Army*, 1859), as to the antiscorbutic value of the desiccated vegetables. During the Utah campaign they were the only vegetables issued to the command, except flour, rice and beans. The daily allowance of flour at the same time, was only 12 ounces and the other components of the rations were correspondingly reduced, yet but six cases of scorbutus occurred in a command, the mean strength of which, was 2,500. Desiccated vegetables cannot of course take the place of fresh vegetables, but in the case of absence or deficiency of the latter, they are very desirable substitutes or adjuncts.

As respects beverages, coffee and tea take the first rank; they are indispensable to the soldier. They lessen waste of tissue, diminish the effects of cold, heat and fatigue, and are protective against malaria. I have already indicated the circumstances requiring the free use of these beverages as hygienic agents. The evidence is conclusive that alcoholic drinks are, under no circumstances, necessary or proper for troops. They are not antidotal to malaria;

they rather dispose to, than prevent scorbutus. I have had an opportunity of observing the latter fact in the most unquestionable manner. Serving with a body of troops under circumstances when it was possible to know the habits of each individual, and the conditions being favorable to the production of scorbutus, the only victims to that disease were old drunkards. Although the whisky ration was long abolished in the army, it is still issued under circumstances of great fatigue, or combined with quinine in the case of service in malarious regions. The hygienical notions governing the use of spirits under these circumstances, are erroneous. The truth is well expressed in the following language of the distinguished Professor of Hygiene at Netley. (*Manual of Hygiene*, 2nd ed. p. 236). "Looking back to this evidence, it may be asked, are there any circumstances of the soldiers' life in which the issue of spirits is advisable, and if the question at any time lies between the issue of spirits and total abstinence, which is the best? To me there seems but one answer. If spirits give neither strength to the body, nor sustain it against disease—are not protective against cold and wet, and aggravate, rather than mitigate the effects of heat—if their use, even in moderation, increases crime, injures discipline and impairs hope and cheerfulness—if the severest trials of war have been not merely borne, but most easily borne without them, if there is no evidence that they are protective against malaria or other diseases—then I conceive the medical officer will not be justified in sanctioning their use under any circumstances."

Beside those articles, which have been found by experience to be indispensable to the health of troops, a variety of other substances, so-called antiscorbutics, have been issued with great advantage. Owing to the timely use of these, to the improvements in the permanent ration of the soldier, and to the substitution of coffee and tea for the whisky ration, that dreadful scourge of armies, scorbutus, has been much less prevalent in armies engaged in recent wars. The improvement in respect to this disease, was most marked in the second year of the Crimean campaign; during our late war, scorbutus was less prevalent than in the British army, the first year in the Crimea, and the evidences of this disease were almost *nil*, in the late campaign of the Prussians. The efforts of hygienists should not be abated, until scorbutus entirely disappears. To accomplish this desirable result, the use of antiscorbutics must not be postponed, as is too frequently the case, until the scorbutic cachexia begins to manifest its baneful effects.

This was the error committed during the late war of the rebellion, and hence notwithstanding the comparative success of our measures, scorbutus disfigured the returns of sick. For the first year of the war, 1,328 cases of scorbutus and 9 deaths were reported, and for the second, 7,395 cases and 90 deaths. According to Dr. Woodward, (*Circular No. 6*), "a scorbutic taint, more or less pronounced, was a prominent phenomenon in most of the diseases of the war." The use of antiscorbutics, (vinegar, saurkraut, pickled cucumbers, onions, cabbages and beans, dried apples, molasses, etc.) was postponed until evidences of the scorbutic taint were present. This mischievous error caused vast misery, and impaired the efficiency of the military forces.

For the prevention of scorbutus, three things are requisite: food having the essential components; variety in the articles, and careful cooking. It will little avail to possess the first two, and be deficient in the latter. Competent cooks will effect much, with even limited materials; incompetent cooks will destroy the nutritive value of the best articles; hence the importance of carefully training a corps of cooks at the primary depots. To insure uniform results in all the culinary processes, specific rules should be made and published, governing the administration of the kitchens and the preparation of camp and field diets. Ignorance of the first principles of the culinary art, is the prevailing error; this may be corrected by instruction at the primary depots, and by the education of line and staff officers in the various departments of hygiene. The most carefully trained cooks will become negligent in the performance of their duties, if not governed by specific regulations and supervised by those competent to detect, and having the power to punish delinquencies.

It may be instructive to note the degree in which these morbid causes impair the efficiency of armies, and to ascertain what measures of hygiene have been most effective in preventing their action. The principal diseases which occur in armies, are the results of the combined action of crowd-poisoning, scorbutus and malaria. Thus, typhoid fever, which as M. Levy has well said, "is the pathological expression of confined air upon soldiers," is modified by scorbutus and malaria, and diarrhoeal diseases, if not directly produced by crowding, scorbutus and malaria, are at least greatly increased in severity by the combined action of these several causes.

Fevers, probably, hold the first rank in point of importance. Comparing the mortality from typhoid fever in the British army in

the Crimea, with the U. S. Army during the rebellion, we have the following result.

|                                                                                         |        |
|-----------------------------------------------------------------------------------------|--------|
| No. of cases of Fever in British Army,-----                                             | 30,376 |
| No. deaths,-----                                                                        | 3,161  |
| Percentage of deaths to cases,-----                                                     | 10.4   |
| Number of cases of Fever (Typhoid and Typho-<br>malarial) for two years in U. S. Army } | 77,726 |
| Number of deaths for the same period,-----                                              | 17,776 |
| Percentage of deaths to cases,-----                                                     | 23.6   |

It thus appears that the mortality from fever in our army was more than twice as great as in the British army in the Crimea. I find on examination, indeed, that the mortality from fever was greater in our army than it was at the worst period (March, 1855) of the prevalence of this disease in the British army. The figures are as follows :

|                                                                                         |      |
|-----------------------------------------------------------------------------------------|------|
| Percentage of deaths to cases of fever }<br>in British Army for March, 1855, }          | 21   |
| Percentage of deaths to cases of fever in }<br>U. S. Army for first two years of war, } | 23.6 |

Comparison of the death rate from fever with the deaths from all causes, will be instructive.

|                                                                                               |      |
|-----------------------------------------------------------------------------------------------|------|
| Deaths from fever in U. S. Army per 1,000 }<br>of deaths from all diseases. }                 | 316. |
| Deaths from fever in British Army in the Crimea }<br>per 1,000 of deaths from all diseases, } | 196  |

M. Levy furnishes us with the following statistics of the mortality from fever in the French Army for three years.

|                  |           |     |                              |
|------------------|-----------|-----|------------------------------|
| Typhoid Fever, { | 1863----- | 196 | deaths per 1,000 in general. |
|                  | 1864----- | 177 | " " " "                      |
|                  | 1865----- | 166 | " " " "                      |

This table exhibits two facts: the close correspondence of the mortality rates of fever in the French and English armies; and the evidence of the influence of improved hygiene in gradually diminishing the proportionate mortality.

If we compare the mortality from diarrhoeal diseases, the facts are in favor of the U. S. army.

|                                                                                                 |       |
|-------------------------------------------------------------------------------------------------|-------|
| Percentage of deaths from diarrhoea and dys-<br>entery in British army in the Crimea, }         | 11.26 |
| Percentage of deaths from diarrhoea and dys-<br>entery in the U. S. army (mean of two years), } | 4.4   |

In estimating the mortality rate of diarrhoea and dysentery in U. S. Army, I have excluded the statistics of acute diarrhoea—a disease of very insignificant character, and usually feigned by those who wished to procure a temporary respite from duty. It is to be remembered, further, that a cholera influence or predisposition, increased the severity of the type of the diarrhoeal maladies prevalent in the Crimea.

There are certain contagious and epidemic diseases affecting the health of armies, which require special means of prevention. An excellent hygienic condition, will diminish the liability to the occurrence of these epidemics and limit their effects, but will not entirely prevent them. The most complete isolation in special hospitals is absolutely necessary for the prevention of eruptive fevers. Regiments or bodies of troops in which these fevers occur, should not be permitted to join armies until the period of incubation has passed. The importance of this measure is exemplified in the returns of sickness and death from measles, the second year of the war.

|                                         |        |
|-----------------------------------------|--------|
| Cases of Measles, .....                 | 16,345 |
| Deaths, .....                           | 1,313  |
| Ratio of deaths to cases, 80 per 1,000. | —      |

The death rate as expressed in these figures does not represent the real mortality, as has been stated by Dr. Woodward, for the sequelae destroyed vast numbers. This disease, unquestionably had its origin in contagion, but was increased in severity, by the bad hygiene of the primary depots and of the permanent camps.

Of small pox and varioloid, 4,132 cases and 1,544 deaths occurred during the first two years of the rebellion.

|                                                                                |      |
|--------------------------------------------------------------------------------|------|
| Ratio of deaths per 1,000 cases of small pox, .....                            | 373. |
| Ratio of deaths from small pox, per 1,000 }<br>deaths from all diseases, ..... | 27.4 |

These statistics may be compared with those of the French army for the same disease. Before the year 1859, according to M. Levy, the figures were as follows :

|                                                                                             |     |
|---------------------------------------------------------------------------------------------|-----|
| Ratio of deaths from variola and varioloid, }<br>per 1,000 of deaths from all causes, ..... | 39. |
|---------------------------------------------------------------------------------------------|-----|

After new instructions by the Minister of War, requiring general revaccination, the proportion of deaths fell to

17.5 per 1,000 of deaths from all causes.

“During the triennial period from 1863 to 1865,” says M. Levy, “of 311,000 patients in the military hospitals, there were 4,207

cases of variolous disease=13.5 per 1,000 sick," being twelve times more than occurred in U. S. army the second year of the late war. Yet we find the mortality in the French army was only 112 deaths per 1,000 cases—a mortality but one-third of that from the same disease in U. S. Army.

The reduction in the death rate from variola and varioloid, in the French army, from 1859 to 1865, is a signal exemplification of the power and utility of vaccination, and is attributed by Levy, to the ministerial instruction which required that "all recruits upon arriving at their corps will be vaccinated, whether or not they present traces of vaccinia."

Against the zymotic diseases in general, are the measures of military hygiene, to be chiefly directed. All of them are amenable to the same means of prevention: avoidance of crowding, suitable camp sites, drainage, ventilation, cleanliness, sufficient aliment properly prepared, well regulated exercise. The sanitary history of the British army in the Crimea furnishes, as I have shown, the most striking evidence of the great value of these measures. In the words of Miss Nightingale, in her testimony before the English Sanitary Commission—"It is a complete example—history does not afford its equal—of an army after great disaster arising from neglects, having been brought into the highest state of health and efficiency. It is the whole experiment on a colossal scale. In all other examples, the last step has been wanting to complete the solution of the problem."

"We had in the first seven months of the Crimean campaign, a mortality among the troops, of 60 per cent. per annum alone—a rate of mortality which exceeds that of the great plague in the population of London, and a higher ratio than in the mortality in cholera to the attacks; that is to say, that there died out of the army in the Crimea, an annual rate greater than ordinarily die in time of pestilence, out of sick."

"We had, during the last six months of the war, a mortality among our *sick*, not much more than that among our *healthy* guards at home, and a mortality among our troops in the last five months, two-thirds only of what it is among our troops at home."

It is a fact recognized by all who have served with troops, that active movements, marches and field operations, are favorable to the health of troops, and prolonged stay in camps prejudicial. On marches, the influences comprised under the term crowd-poisoning, have not time to be developed, but a few days or weeks of sojourn



in camps, suffice to create them. Besides these evils, there are others of a moral character, which no less require the interposition of hygienic measures. The idleness and the monotonous duties of the camp, weary the men, and they lapse into a state of *ennui* and despondency, which lowers the general health and promotes the action of morbid causes. Having nothing else to do, the men lounge in their tents or huts, smoke incessantly if they can procure the tobacco, or doze during the long hours of the day, to be wakeful at night. They thus breathe impure air of their quarters much more than is necessary. The French understand these evils and have thoughtfully instituted means to prevent them—games, gymnastics, out-door sports, which are carefully regulated by official decrees.—(*Didiot, Code des Officiers de Santé, Deux. part, p. 776*). *Rien n'est plus salutaire à la santé que l'action, le mouvement ; et toutes choses égales, d'ailleurs, la santé du soldat se maintient mieux dans les camps qu'en garrison*, is the motto with which Didiot heads his chapter on military exercises and movements, (gymnastics).

The chief sanitary evils of active campaigns, is the camping in unhealthy situations, e. g. in malarious districts and on ground previously occupied by troops. Camps should never be placed on low grounds, near marshes, upon badly drained soil or subsoil, or at the head of ravines leading up from low malarious valleys. As contagious diseases, cholera, dysentery, camp fever, etc., are produced by camping on ground previously occupied and saturated with organic emanations ; such positions should be avoided. The military necessity, when in the presence of an enemy, may require the violation of these rules of hygiene, but the necessity ought to be clear and unequivocal.

The "route step" has been wisely substituted for the close order which military martinets formerly required. This step gives greater freedom of motion, permits the carrying the "arms at will." The greater space between the files, prevents the continual rebreathing of the exhalations from each other's lungs. Frequent halts are necessary to permit the men to drink and refresh themselves. When marching in the rain, the men should be protected by their ponchos, and should be provided with a gum blanket to lie on at night. Nothing is more grateful to men on the march, or more beneficial hygienically, than a plentiful supply of infusion of coffee or tea. They should be encouraged to drink this, rather than the selenite or calcareous waters, or those containing organic matter, or the clear marsh water of malarious districts.

The character of the clothing is not without influence upon the health of soldiers. The material of the clothing should be woollen—for this is best fitted to prevent the injurious influences of great and sudden variations of temperature. That issued to the U. S. troops is, when properly made, unexceptionable, hygienically considered. It is so well known that I need not enter into any details respecting it.

It is one thing to propose measures for promoting the hygienic conditions of armies, and quite another, to secure a faithful execution of them. Military officers should be trained in all the methods of hygiene. Unfortunately, the suggestions of medical officers are generally coldly received, if not absolutely ignored. Military commanders are impatient of interference, and are especially intolerant of all measures, such as hygienic improvements, which seem to reflect on their wisdom. A distinguished general of the late war, praised without stint the medical director of his army, and the ground of his favorable opinion, was frankly admitted to be "the Doctor never troubled me." A parallel existed in the medical service of the British army—for, according to Miss Nightingale, a medical officer abstained from making suggestions, lest he should get the reputation in the service of being a "troublesome fellow."

A general will rarely receive suggestions or recommendations from his chief medical officer, unless the matter be embraced within the specific duty of the medical officer as defined in orders and regulations. As the manifold questions of hygiene involve the various details of military command and authority, they cannot be decided on by advising and inspecting officers. Moreover, the general in command, in the field, may suspend almost any authority which conflicts with his appreciation of the military necessity. If the commanding officer does not know that men require a certain air-space in order to be healthy, and that crowding will produce disease, he will not be inclined to act upon the information of a medical officer. In order, therefore, to give effectiveness to hygienic measures, it is necessary that officers of the line who command troops, be instructed in hygiene. If the study of this science were made a part of the curriculum at military schools, the good effects would soon be observed in an improvement of the hygienic condition of armies.

A corps of sanitary inspectors and a systematic plan of inspection, are valuable means of ascertaining the existence of sanitary evils. As organized and conducted during the late war, the san-

itary corps had but little effectiveness. The inspectors reported to their chief at Washington, and not to the chief medical officer of the army, or department in which they were inspecting. There was a lack of coördination in this arrangement, which prevented harmonious working, and destroyed all unity of purpose and effort. An army medical inspector should be inferior in rank to the chief medical officer, and should be required to report directly to the latter. The qualifications for appointment to the post of medical inspector should consist in an extended acquaintance with the science of hygiene, and of the adaptation of hygienic measures to the exigencies of military service.

**SUMMARY.**—By what hygienic means may the health of armies be best preserved?

The conclusions to which I have arrived after a careful survey of the whole ground, are expressed in the following summary:

1. The minimum age of the men composing an army, should be twenty-five. In addition to the ordinary requirements of recruiting regulations, the influence of diatheses and cachexias over the health and physical stamina should be considered.

2. In the training of recruits, the conditions of the military service should approach as nearly as possible, to those of civil life. As the mortality of this period is greatly in excess of the other periods of military life, special hygienic precautions should be taken as respects habitations, diet, clothing, exercise, amusements, etc.

3. As the chief danger to the health of the soldier arises from crowd-poisoning, scorbutus, malaria, a morbid cause compounded of these, and from contagious and epidemic diseases, the sanitary regulations of armies should be especially directed to the avoidance of the evils of permanent camps and barracks; to providing a varied and ample diet; to instituting the most approved measures of private and public hygiene, and to enforcing police laws against the spread of probable zymotic diseases.

The question proposed by the Committee as to the comparative hygienic condition of the Union army during the late war, and of the armies in the great campaigns of Europe, must be answered as follows:

The statistics prove that an unusual degree of health did not prevail in the U. S. army during the war.

Compared with the first year of service of the British army in the Crimea, the health of the U. S. army was better, and the mortality rates lower; but

Compared with the last six months of the British army in the Crimea the health of the U. S. army was much worse, and the mortality rates much higher.

The sanitary condition of the Union army during the late war was not any better than that of the French army in the Crimea, and was not so good as that of the French army in Italy and Algeria.

The sickness and mortality rates of the Union army during the late war, were very much higher than those of the Prussian army in the late campaign against Austria.

The diminution of the sickness and mortality rates of the European armies during the last twenty-five years, the result of improvement in hygiene, have not occurred in the same ratio in the U. S. army.

ARTICLE IV.

# QUININE AND ITS SALTS.

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RUSSELL PRIZE ESSAY

ON

THE THERAPEUTIC USES AND ABUSES OF QUININE  
AND ITS SALTS.

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*Quod scripsi vidi.*

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BY

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**Materia Medica**, a collection of incoherent opinions, is perhaps, of all the physiological sciences, that which most exhibits the contradictions of the human mind. In fact, it is not a science for a methodic spirit; it is a shapeless mass of inexact ideas, of observations often puerile, of imaginary remedies, strangely conceived and fastidiously arranged.—*Bichat, Anat. Générale.*

The merit of a therapeutic treatise does not consist so much in the nomenclature and classification of curative agents, as in a scrupulous care to specify well the circumstances which cause a variation in the effect of these agents; not in attributing to them any imaginary virtue in connection with this or that medical doctrine, but in keeping strictly to the results of pure observation.—*Renouard's History of Medicine.*

## INTRODUCTION.

THE salts of quinine employed in medical practice are the following:

| <i>Quinia.</i>                     |              |            |                                  |
|------------------------------------|--------------|------------|----------------------------------|
| Compounds with<br>Vegetable Acids. | Acetate.     | Phosphate. | Compounds with<br>Mineral Acids. |
| Kinate.                            | Tartrate.    | Sulphate.  | Hydrochlorate.                   |
| Tannate.                           | Valerianate. | Nitrate.   | Arseniate.                       |
| Citrato.                           |              |            | Ferrocyanate.                    |

As the sulphate is the salt almost exclusively used, whenever the term, quinine, is employed in these pages without explanation, the sulphate is meant.

In pursuing an inquiry into the therapeutic uses and abuses of quinine and its salts, two objects should be held in view:

To ascertain the real value of these agents in the diseases for which they are now prescribed;

To add to the sum of existing knowledge by original investigations.

The inexact notions now prevalent regarding the uses of quinine are exhibited in the immense variety of indications which it is supposed to fulfill. Waring, an author whose industry has permitted nothing to escape his search into the uses of the various articles of the *Materia Medica*, gives the following as diseases in which quinine has been employed:

### *Fevers.*

|            |             |               |               |
|------------|-------------|---------------|---------------|
| Typhus.    | Puerperal.  | Variola.      | Intermittent. |
| Typhoid.   | Rubeola.    | Erysipelas.   | Remittent.    |
| Relapsing. | Scarlatina. | Yellow Fever. | Pernicious.   |

### *Periodical Diseases (Malarial Origin).*

|                   |              |                 |                       |
|-------------------|--------------|-----------------|-----------------------|
| Periodical Fever. | Hay Fever.   | Tic Douloureux. | Ophthalmia.           |
| Angina Pectoris.  | Cephalalgia. | Hiccough.       | Stricture of Urethra. |
| Spasmodic Asthma. |              |                 |                       |

### *Diseases of the Brain and Nervous System.*

|                     |           |          |            |
|---------------------|-----------|----------|------------|
| Insanity.           | Epilepsy. | Tetanus. | Neuralgia. |
| Puerperal Insanity. | Chorea.   |          |            |

*Diseases of the Eye.*

|             |             |              |         |
|-------------|-------------|--------------|---------|
| Ophthalmia. | Nyctalopia. | Hemeralopia. | Iritis. |
|-------------|-------------|--------------|---------|

*Diseases of the Thoracic Organs.*

|            |                        |               |        |
|------------|------------------------|---------------|--------|
| Phthisis.  | Pleurisy.              | Hoopmg Cough. | Croup. |
| Pneumonia. | Laryngismus Stridulus. |               |        |

*Diseases of the Digestive Organs.*

|               |            |          |        |
|---------------|------------|----------|--------|
| Cancrum Oris. | Diarrhoea. | Cholera. | Worms. |
| Apthæ.        | Dysentery. |          |        |

*Diseases of the Skin.*

|                   |            |            |
|-------------------|------------|------------|
| Erythema Nodosum. | Urticaria. | Pemphigus. |
|-------------------|------------|------------|

*Constitutional Diseases.*

|         |           |           |           |
|---------|-----------|-----------|-----------|
| Scurvy. | Scrofula. | Syphilis. | Gangrene. |
|---------|-----------|-----------|-----------|

This list of diseases by no means represents the widely extended employment of quinine as a tonic and restorative, as a supposed specific in various forms of disease, and as an agent promoting the functional activity of many organs. Conditions of the organism the most opposed are held to indicate the use of this remedy. Theories the most divergent have been constructed to account for its remedial virtues.

## SPECIFICITY.

The most important property of quinine and its salts is the specific action, in virtue of which it can prevent and cure malarial diseases.

*Prevention of Malarial Poisoning.*—What is the value of quinine as a prophylactic against malaria? Numerous instances have been collected in which those using quinine as a preventive of malarial poisoning, have enjoyed an extraordinary exemption from malarial diseases when exposed under peculiarly unfavorable circumstances.\*

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\* Dr. Bryon, R. N., called the attention of the profession in 1854 (*Medical Times and Gazette*, Jan., 1854) to the prophylactic power of quinine in preventing those deadly miasmatic fevers which formerly proved so destructive to the crews of the British vessels on the coast of Africa. In the following year Mr. Hayne published an account confirming these statements by numerous observations of his own. The Statistical Reports of the British Navy have, for several years, contained the most conclusive evidence of the prophylactic power of quinine, from the African station. Prof. W. H. Van Buren, M. D., has published a most interesting paper (*Sanitary Commission Document—Military, Medical and Surgical Essays*, edited by Dr. Hammond) in which he has collected all the evidence proving the efficacy of quinine in preventing malarial diseases. More recently Prof. Joseph Jones, M. D., has investigated the subject and published his observations in the *Nashville Jour-*



Does the habitual use of quinine confer absolute immunity? To answer this question satisfactorily it will be necessary to examine the evidence. Two kinds of facts have been reported: *1st.* Complete protection of all exposed and for the whole period under exposure; *2nd.* Incomplete protection of a small percentage, and apparent failure to protect a still smaller percentage of those exposed. There have been but few instances reported belonging to the first set of facts. Dr. Van Buren quotes one from an authority which we have not seen. "From the day we crossed the bar, in the Pleiad's voyage, I commenced giving quinine solution to all the Europeans on board \* \* \* to three weeks after our return to Fernando Po, a period of one hundred and forty days. *In no single instance could I recognize its failure.*" "The man I could not train into taking it was one of our second mates, who, in the course of our voyage, had a few severe attacks of remittent fever accompanied by delirium." In most of the instances reported, although the protection seemed absolute at first, cases of fever, after a time, began to appear. According to the report of Mr. Heath, Surgeon to the "Teazer," "—during our stay in the River Lagos, quinine wine was regularly offered to the men, morning and evening; all took it, I believe, except two midshipmen and two seamen belonging to the galley. These four persons subsequently each suffered an attack of fever, whilst in the whole force, consisting of 220 men, there occurred only a few cases of trifling importance." We have, in this observation, all the factors necessary for the solution of the problem. Equally satisfactory is the following report by Mr. Hayne, R. N.: "The boats were dispatched with 32 officers and men up the Rio Pongo, and remained in the river for two days and nights; one ounce of quinine wine (four grains to the ounce) was given daily to each person; between the twelfth and fourteenth day after leaving the river four slight cases of fever occurred." The steamer "Bloodhound" remained in the Benin river twenty-seven days, and during this time and for fourteen days subsequently, three to six grains of quinine were given daily to each member of the crew, and only six had slight attacks of fever. A boat's crew, consisting of 32 men and officers, spent two nights in the Lagos River. The Surgeon administered quinine wine to all

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nal of Medicine and Surgery. In addition to facts previously known, Dr. Jones gives some valuable statistics never before published. The writer has availed himself of all these sources of information.

of them, and nine out of the party were attacked with fever at periods varying from five to seventeen days.

The most satisfactory statistics, in some respects, which we have been able to find, are those in Dr. Joseph Jones' paper, contained in a report from Dr. Samuel Logan, Chief Surgeon of the 2d and 3d Military Districts, Dept. of South Carolina, Georgia and Florida. "The following table," says Dr. Logan, "was compiled with the view of enabling the writer to arrive at some conclusion as to the prophylactic power of quinine. The items were collected, either by himself or the medical officer in charge. \* \* \* It will be observed, that in no single case was the agent unanimously adopted; in many, indeed, its use was resorted to by a minority only. So far as my object was concerned, this enabled me to compare the results among those situated under the same identical circumstances, in all particulars, except the use or neglect of the agent whose effects we are investigating. \* \* \* All the troops from whom these items have been gathered, were stationed in the most highly malarious regions in the Confederacy. \* \* \* In some cases the quinine was taken in the morning, in others at night, four grains being the quantity used

|                                                     |     |
|-----------------------------------------------------|-----|
| Total number who took no quinine,.....              | 230 |
| Of these had fever,.....                            | 134 |
| Total number who took quinine irregularly,.....     | 246 |
| Of these had fever,.....                            | 96  |
| Total number who took quinine regularly,.....       | 506 |
| Of these had fever,.....                            | 98  |
| Ratio per 1000 of fever cases to patients, 193.67." |     |

This is in the proportion of 1 to every 5.16. On the coast of Africa the proportion varied from 1 in 8 to 1 in 20. These figures and observations are conclusive as to the prophylactic power of quinine; but how shall we explain its success in most instances, and its failure in a few? There appears to be an increase in the number of cases of fever after prolonged exposure, notwithstanding the use of the quinine is continued. This is explicable, only, on the theory, that, if the same quantity of the quinine be continued, the morbid cause remaining in action, the protective influence slowly declines.

The opinion that the protective influence of quinine diminishes with long continued use, is supported by the fact, that the curative power of this remedy declines with repetition in a case of ma-

larious disease. It cannot be denied, however, that the weight of authority is opposed to the view which we have taken. Prof. W. H. Van Buren\* thinks that the facts which he has collected prove that the prophylactic power of quinine is not lost by repeated use. On the other hand, Dr. Newberry, whom Dr. Van Buren quotes, takes the opposite ground. Dr. H. W. De Saussure† makes the following statement:—

“I think that I have been able to collect a sufficient number of data to render the opinion plausible, if not conclusive, that quinine possesses the power of protecting the white man from attacks of intermittent and remittent fever, or its collaterals, when exposed for even long periods to malarious influences; and, moreover, that its daily use is in no wise injurious to health, nor does its habitual use render the system insusceptible of its remedial powers.”

Prof Joseph Jones sums up his conclusions as follows:

“1st. Quinine taken during exposure to the exhalations of miasmatic regions, will, in most cases, ward off fever entirely.

2d. If fever attack those to whom the quinine has been regularly administered, its severity and duration will be far less than in those who have not taken the quinine; it therefore not merely wards off disease, but renders it less powerful and destructive when present.

3d. To be entirely efficient, the quinine must be administered for some time, at least ten days, after exposure to the causes of fever.”

These observers, with the exception of Dr. Newberry, agree that the prophylactic power of quinine does not diminish by long continued use, and that the protection which it affords is not absolute. The conclusion at which we have arrived may be expressed as follows:

Prophylactic, but the protective influence slowly but certainly diminishes, provided the same quantity be administered daily, and the external conditions remain the same. To insure a continuation of the prophylactic power, increasing doses become necessary, in accordance with the law—to maintain a constant physiological effect which shall be uniform, administration of doses increasing in a regular ratio is required.

The protective influence of quinine against malarial poisoning must be regarded as incontestably established. This is a fact of

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\* Sanitary Commission—Quinine as a Prophylactic, etc.

† American Journal of the Medical Sciences, Jan., 1861.

the greatest value to mankind, whether we adopt the conclusion that the protection is absolute for a period and then declines, or that it is incomplete but permanent. The same rule of practice is indicated in either case. If the protective influence were absolute and permanent, and if no ill effects were produced by its prolonged administration, quinine should constitute a part of the daily ingesta of the peoples inhabiting malarial regions. No one has had the temerity to propose such an abuse of the prophylactic. Observations upon the physiological effects of quinine, to be presently detailed, show that the long continued use of quinine does impair certain important functions; it cannot therefore be continued with impunity. Further, it is an axiom, that no remedial agent should be substituted for the protective influence against disease of hygienic means. No fact is better established than that suitable food, clothing, and modes of life, are protective, in a large degree, against malaria of moderate intensity. It follows, therefore, that the protective influence of quinine should be employed in cases where the exposure is great and the malaria concentrated and deadly—conditions which hygienic means cannot successfully oppose. To be properly effective here, the quinine should be given in sufficient doses, and its power should be maintained, by gradually increasing the quantity daily administered. The amount should be graduated to the conditions requiring it. *Casteris paribus*, an additional grain a day should be added every week. Five grains of the sulphate is the minimum daily allowance. Such, at least, is the conclusion to which we have come, after considerable personal observation, and a candid examination of the facts reported by others.

*Acute Malarial Poisoning.*—The specific effect of quinine, in curing periodical fever, is the best established fact in therapeutics. But this fact has its corresponding fallacy;—the power to cure malarious diseases is lost under circumstances to be presently detailed. What are the uses and abuses connected with the employment of quinine in curing intermittents, remittents, and other forms of acute malarial poisoning? This question includes period of administration, methods, dose, and the adjuncts to the specific medication.

The necessity for preparatory treatment, although much discussed, is yet *sub judice*. Formerly, in order to secure the best results from the administration of quinine, it was considered necessary to relieve hepatic and splenic engorgement, and the evident

derangement of the digestive organs. The tendency of medical doctrine and practice at the present day, especially of those who so constantly witness the prompt subsidence of the so-called complications, when the antidote is administered, is to regard any preparatory treatment as unnecessary. We do not agree in opinion with the advocates of either practice.

Quinine is successful in the cure of malarial poisoning, in proportion to the acuteness of the attack; in other words, it can neutralize or destroy, very perfectly, the morbid matter, but cannot cure structural alterations. Functional derangement of organs ensues upon the circulation through them of blood charged with malaria. The continued operation of the cause induces at length structural changes in those organs upon which the malaria has a selective action. In a large proportion of cases of acute malarial poisoning, the ground-work of structural alterations has been laid.

If a sufficient quantity of quinine has been administered to neutralize all of the poison present, no changes in the constitution of any organ having occurred, there will be no return of the febrile phenomena.

If, however, changes in the structure of organs have occurred, the periodical attacks are apt to recur from time to time.

Such are the fundamental facts which must resolve the question of preparatory treatment, and not the old idea of a balance in the circulation to be restored and altered "secretions" to be corrected.

As a certain daily quantity of quinine is necessary to prevent malarial poisoning—a quantity fixed within tolerably narrow limits—so also, a certain quantity of quinine, experience has shown to be required for the cure of malarial fever. This has been reduced to the certitude, almost, of a mathematical demonstration.

For the cure of acute malarial poisoning,

Intermittent form,.....20 grains.

Remittent form,.....30 grains.

If the malaria be very concentrated and still in action, these numbers must be multiplied by 2. The experience of the writer enables him to assert with confidence, that, as ordinarily observed, acute malarial poisoning requires these fixed quantities. For exceptional cases, exceptional doses may be necessary.

A great deal of wisdom has been expended in endeavoring to determine the time and the doses in which the necessary quantity

of quinine must be administered, in order to secure the best results. Strange inconsistency! To admit the antidotal power of quinine, and to be perplexed, whether it is best to administer it in small doses during the interval, or in a single large dose before the expected paroxysm, or in the sweating stage.

Can the quinine be given during the febrile movement, without detriment to the patient, and with the maximum curative effect? There are conditions which will test the accuracy of the preceding statements. The following observations were made as the *experimentum crucis*:

A patient with Tertian Intermittent. Date of observation, November, 8, 1867.

Febrile movement begun; 20 grains of quinine given.

| Hour.   | Temperature. | Pulse. | Resp. |
|---------|--------------|--------|-------|
| 9 A. M. | 99.7° F.     | 90     | 22    |
| 10      | 100.4°       | 78     | 20    |
| 11      | 99.7°        | 72     | 18    |
| 12 M.   | 99.7°        | 70     | 17    |
| 1 P. M. | 98.6°        | 68     | 17    |
| 2       | 98.6°        | 64     | 16    |
| 3       | 97.3°        | 60     | 12    |
| 4       | 98.6°        | 72     | 18    |
| 5       | 97.4°        | 68     | 16    |
| 6       | 97.3°        | 66     | 16    |
| 7       | 99.3°        | 60     | 15    |
| 8       | 99.3°        | 61     | 15    |

Beginning to sweat.  
Sweating.

Sweating profusely.

The influence of the quinine, in first reducing the pulse-rate and respirations and afterwards lowering the temperature, is here most marked. Equally evident is the inhibitive influence of the remedy shown in preventing the normal evolution of the fever. The patient had no return of the paroxysms. The same observations have been frequently made, but it would serve no useful purpose to occupy space in detailing them. The foregoing is a typical case.

The antiperiodic is equally effective, whether administered in the interval or during the seizure.

If time is an element of importance, no delay is necessary, in order to give the remedy in the stage of apyrexia.

To save the suffering and exhaustion of the febrile movement, the attack should be anticipated, and if possible, prevented.

As the maximum effect of the quinine is attained in about five

hours after being taken, it should be administered this period of time, at least, before the expected paroxysm.

As the elimination of quinine takes place with considerable rapidity, (see post,) the maximum curative effect is obtained by the administration of the whole amount required, in a single dose, rather than by a succession of small doses.\*

Quinine may be introduced into the organism, through several channels;—by the stomach, by the rectum, by the skin, by the subcutaneous areolar tissue. So far as the quality of the effect is concerned, there is no difference in these several modes; but in respect to quantity of effect, there are wide variations between them. We have ascertained, by careful clinical observations and experiments, that four times the quantity is required by the rectum than by the stomach, to produce a given physiological and therapeutical effect. By the subcutaneous areolar tissue, the therapeutical effect of the same quantity of quinine is three times greater than by the stomach. The statement previously made, as to the quantity of this agent required for the cure of acute malarial poisoning, is predicated upon its introduction by the usual channel—by the stomach. The administration of the remedy by the rectum is wasteful, and generally improper, but may be necessary in the case of irritable stomach, and in those who from any cause refuse to swallow. The endermic method is more painful and not so effective as the subdermic, which has taken the place of the former. Considered with reference to the prejudices of mankind, and, provided that no contra-indication exists in the state of that organ, the stomach is the best medium for securing the absorption

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\* The administration of single large doses of quinine (20 to 30 grains) is American practice. In the Medical Statistics U. S. Army, (1839 to 1855,) we find that this practice is claimed for our army surgeons. This method of treatment is almost universal in those parts of the South and South-west, where the severer forms of malarial fever prevail, but has not been adopted in the Middle and Northern States. Influenced by the example of American army surgeons, the India medical officers use large doses of quinine in the treatment of malarious diseases. In the Medical Times and Gazette, for November and December, 1864, we find a communication from Mr. Hare, Deputy Inspector General of Hospitals, in which he claims some originality for the use of 20 to 60 grain doses of quinine, and for giving it "irrespective of all variations of symptoms." "I gave a standing order to my assistants, that the moment a patient was admitted he was to have 20 grains quinine. I saw him myself always a short time afterwards, and gave him another 20 or 30 grains, according to the urgency of the symptoms. \* \* \* Ordinary cases took this dose (20 grains) three times a day, etc." In this reckless use of quinine Mr. Hare has been anticipated, thirty years.

of quinine. It is most effective in the state of solution—one drop of dilute sulphuric acid to each grain of quinine—and when taken into an empty stomach. In the present state of public sentiment, especially in the case of children, considerable importance should be attached to the means of disguising the taste. As the amorphous quinia and the alkaloid itself, are much less soluble in the saliva than the salts, the former may be given to children, and to females. Coating the pills with sugar, is of course effective; but this practice has led to the extensive use of sugar-coated pills, prepared abroad. Examination of these pills, has confirmed doubts of their efficiency. They do not produce the physiological and therapeutical effects, belonging to the quantity of quinine which they are supposed to contain. Having examined several specimens, I ascertained that

One grain pills contained from  $\frac{1}{4}$  to  $\frac{1}{2}$  grain;

Two grain pills contained from  $\frac{1}{4}$  to  $\frac{3}{8}$  grain.

Tannic acid disguises the taste pretty effectually, in the proportion of 2 grains of tannin to 10 of quinine. Strong coffee is an excellent vehicle for covering the intense bitterness. If sugar-coated pills be prescribed, they should be prepared freshly by the pharmacist.

The most effective mode of administering quinine, considered with reference to its therapeutical power, is the method by sub-cutaneous injection. Dr. Chasseaud published, in 1862, an account of the great success which he had obtained in the treatment of malarial fevers in the hospital at Smyrna, by the sub-cutaneous injection of quinine. He ascertained that the salt, administered in this way, had a more decidedly curative power, without occasioning its usual physiological effects, than when given by the stomach. This practice has since been continued with undiminished success at the same hospital by Mr. Craith. These favorable reports induced trials of the same method in various parts of the world—in Germany, France, India and the United States—and success has everywhere attended it, so that the sub-cutaneous injection of quinine for the cure of malarial fevers has become an established practice. We have had a large experience in the employment of this method, and can confirm in every important particular the published reports.

It is a remarkable fact, confirming the doctrine of a specific action of quinine, which is irrespective of its physiological effects,



that the cure of malarious disease by sub-cutaneous injection is not necessarily accompanied, by any evidence that can be recognized, of an impression upon the nervous centres. The cure may be accomplished without any disturbance of the vascular system, without any alteration of the normal thermal line, and without any disorder of the cerebral functions. A smaller quantity of the remedy being required, brings the use of this important agent within the means of the poorer classes, and by diminishing consumption, tends to cheapen the price for the benefit of all.

The important question is—Does the quinine, administered by this mode, prove more decidedly curative? No other considerations are of value, if the remedy simply accomplishes as much and no more than when given by the stomach. We have ascertained, by clinical observation, that it has a greater curative power when thrown into the sub-cutaneous areolar tissue, than when administered by the stomach. Three cases of obstinate quotidian intermittent were treated ineffectually by large doses of quinine given by the stomach, but an intermission of considerable duration—12, 16 and 25 days—was obtained in each case respectively by the use, sub-cutaneously, of 5 grains of sulphate. These were cases of chronic malarial poisoning, which is often very rebellious to treatment. The quantity required for the cure of the acute forms of malarial poisoning will vary from 5 to 8 grains of the alkaloid, or 8 to 12 grains of one of the salts. The site of the injection is of little consequence. The solution should, however, be thrown into parts not to be called into use, for more or less pain and soreness follow the application. Sometimes troublesome abscesses result, and in all cases a little inflammation and ecchymosis occur about the point of puncture. Considerable inflammation and abscess are produced if the solution used be too concentrated, or if solid particles are injected. We were so unfortunate as to err in these particulars, in the first use of sub-cutaneous injections, producing large abscesses. We have since used solutions more dilute and carefully filtered to separate solid matters. To obtain a sufficient effect, several injections may be used at the same time and inserted into different parts. Patients will not object to this, if local anæsthesia be induced by the use of Richardson's spray producer. The solution of the alkaloid, *quinia*, in ether, we have found the least objectionable, and thus far no accidents have resulted from it.

Quinia, one part;  
Ether, sixty parts;

or shake any quantity of quinia with pure ether, pour off the supernatant liquid and filter. Sixty parts of ether will hold in solution one part of the alkaloid; but if the ether be allowed to evaporate, a much greater degree of concentration can be attained. One grain of the alkaloid to six minims of ether is the most condensed solution which we have found advisable. When the syringe has been used, it should be washed with ether or alcohol, lest particles of quinia remaining adherent become detached the next time the instrument is used, and be forced into the areolar tissue, producing irritation and abscess.

The solution of the sulphate may also be used for sub-cutaneous injection. The following formula we have been in the habit of employing:

Sulphate of Quinia, 60 grains;  
Dilute Sulphuric Acid, 40 minims;  
Distilled Water, 1 fluid ounce.

This should be carefully filtered to separate any undissolved sulphate of quinia, and should be kept in carefully stoppered bottles to prevent any particles of dust gaining access to it. A fluid drachm of this will be a suitable dose for an ordinary intermittent, but this quantity should not be injected in one place.

In acute malarial poisoning, the cause having been but a short period in operation, nothing but the specific medication, in any of the modes already indicated, may appear to be required. But if the cause has remained in action for some time before exploding in a febrile movement, there occur in the functions of organs certain modifications which demand remedial measures. These may be summed up in a few words: lessened production of bile, diminution in the amount of urine secreted and a change in its character, and fullness of the spleen. The elements of bile appear in the urine; this fluid, although preserving its specific gravity, contains, in many cases, traces, and in some a considerable quantity, of albumen (congestion of Malphigian tufts?) The success of the specific medication will be rendered more certain and the abuse of quinine prevented, if these signs of functional derangement of important organs be observed, and the conditions which they denote corrected. These indications we have found to possess a great and unquestionable value. They may be fulfilled by the use of the compound jalap powder, and dilute solutions of bitartrate of potassa, as a diuretic to relieve congestion of the Malphigian tufts.

These adjuncts to the specific medication we have found to shorten the duration of malarious diseases, and to render unnecessary the prolonged use of quinine. It will be perceived that this treatment is supplementary and not preparatory, although cases of the intermittent variety of acute malarial poisoning may occur, in which these remedial measures may, with great propriety, precede the specific medication.

*Chronic Malarial Poisoning.*—We have now to examine conditions of disease differing in many important respects from the preceding. It will be necessary to have a clear idea of these conditions, in order “to specify well the circumstances which cause a variation in the effects of the agent” whose therapeutical uses and abuses we are now engaged in studying.

Very important changes may be induced in the structure of organs by the slow introduction of malaria, without the production of the objective phenomena of fever. These changes are produced more rapidly and are more pronounced if febrile movements have occurred. These structural alterations are found in the blood, liver, spleen, kidneys and glandular apparatus of the intestinal canal. The writer has been engaged in the study of these changes for several years, and unless reference is made to authorities, he wishes to be understood as having observed the lesions which he describes.

In the blood, the most obvious changes—considered from the point of view of the morphotic elements—are irregularity of outline, notching of the red corpuscles, and an increase in number of the white. A very important condition, described by Frerichs,\* and recently elaborately examined by Dr. J. Forsyth Meigs,† is the very large amount of pigment matter found in this fluid, as also in certain other structures of the body. Pigment deposits take place in the liver, producing first a fawn color, which gradually deepens into a bronze, as the amount of coloring matter increases. We have observed this change to occur in cases without being the result of malarious fever, but produced by the toxic effect of small quantities of the malarious poison, whose action extended over a considerable space of time. The alterations in the spleen are of two characters: first, a simple increase in size, due to accumulation of “splenic pulp;” second, hypertrophy, due chiefly to development of the trabeculæ and Malpighian bodies (chronic

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\* Diseases of the Liver, Syd. Soc. Trans.

† Penn. Hospital Reports, Vol. I.

splenitis?) These changes in the spleen possess the greatest clinical value from the point of view of the uses and abuses of quinine and its salts. Whilst the first occur to a greater or less degree in acute malarial poisoning, and may occur in chronic malarial poisoning accompanied by febrile movements, the second are almost always characteristic of the chronic form of malarious poisoning. The slow introduction of the morbid principle is accompanied in such cases by a gradual increase in the size of the spleen, the tissue of which becomes rather reddish than brown, and attains a degree of firmness entitling it to the term "fleshy." Coincidentally with these changes in the spleen, occur the pigment deposits in the liver, and the accumulation of pigment granules in the blood. We have also constantly observed a peculiar bronzing of the skin, especially of those parts exposed to the light. The glandular apparatus of the intestinal canal undergoes certain important alterations. Deposits of pigment matter take place around the orifices of Lieberkuhn's follicles; the solitary glands and the patches of Peyer thicken, and the glands of Brunner become more prominent. These changes in the intestinal glands are, apparently, of the same nature as those which take place in the Malpighian bodies of the spleen, which are supposed by many physiologists to be connected with the lymphatic system, to which the solitary glands and patches of Peyer are also affiliated. Frerichs has shown that pigment deposits occur in the cerebro-spinal axis, and his observations have been confirmed in a very interesting and striking manner by Dr. John F. Meigs.

The kidney is also the seat of peculiar alterations. Dr. Meigs notes the deposit of pigment granules in the Malpighian tufts. Congestion of the Malpighian tufts occurs not unlike that which may be artificially induced in animals by tying the abdominal aorta below the origin of the renal arteries. This congestion of the tufts may be recognized by signs which are very characteristic during life, if search be made for them. The urinary secretion is slightly decreased in amount, but its specific gravity remains up to the normal standard. As there is so little apparent departure from the state of health, attention is not usually directed to the urinary secretion. On examination, it will be found that the urine contains albumen, but no tube casts, and that it is not materially deficient in salts. These signs indicate congestion of the Malpighian tufts, but not disease of the tubules. It is difficult to explain the appearance of albumen. Either some change has

occurred in the albumen itself, increasing its osmotic power, or the congestion of the vessels of the tufts is the factor. The amount of albumen which may appear in the urine will vary indefinitely, and some trace of it will always be found, if carefully and unremittingly sought for. To detect a small amount of albumen, the best method of proceeding is, to let fall a few drops of urine upon the side of a test-tube half filled with colorless nitric acid, so that it may come in contact with the acid, slowly. Coagulation of the albumen will take place at the point of contact. Sometimes tube casts, fatty and waxy, may make their appearance, when, of course, the gravity of the case is much increased, and the symptoms so marked as to awaken suspicion of the nature of the lesions.

Such, in brief, are the changes in the organism produced by malaria. They cannot be omitted from consideration in a discussion of the therapeutic uses and abuses of quinine; nevertheless it would scarcely be pertinent to the purpose of this essay to describe these changes with more particularity.

Is the therapeutical power of quinine diminished in proportion to the extent of the structural alterations brought about by malaria? We have already expressed a fundamental truth, in the statement that the remedial efficacy of quinine is in proportion to the acuteness of the attack. In other words, the longer the morbid cause has continued in action, and the more extensive the resulting lesions, the less the curative influence of quinine. Some of the greatest abuses of quinine occur in its administration for the relief of chronic malarial poisoning. Continued exhibition of it is necessary to diminish the frequency of the febrile movements, and often without effect, for they return again and again despite the remedy. The bronzed liver and the fleshy spleen appear to be unaffected by it, and so long as these remain in a pathological state, the paroxysms of fever will recur. It is obvious, therefore, that large doses of quinine are improper, in the treatment of chronic malarial poisoning; small doses may be necessary at suitable intervals to neutralize any malarial poison still present in the blood. The importance of medication for the cure of the structural alterations can hardly be overestimated. The methods which we have pursued and have found effective, are as follows: Small doses of the iodide of potassium, sodium or ammonium (one grain) are administered every hour during the day and evening; and the ointment of the biniodide of mercury (Phar. Dub.) is rubbed once a day over the splenic region until vesication is produced.

When the digestion is feeble and diarrhea is present, diluted nitromuriatic acid, given in infusion of cinchona, is preferred to the iodide. Sometimes a succession of blisters is applied to the splenic region, and the freshened surface dressed with the compound ointment of iodine. This method of medication is persevered in steadily for several weeks, a five-grain dose of quinine being given occasionally, provided this remedy have not been much administered previously. If the organism have become accustomed to the quinine and is no longer influenced by it, in respect to its specific action, we give in its stead—narcotine—a remedy in point of efficiency as an antiperiodic, next, probably, to quinine. If the malarial cachexia is not pronounced, we frequently employ the following combination: Take of Quinoidine gr. 120, Acid Arsenious gr. 2, Extract Nux Vomica gr. 20—To be made into 60 pills, three to be taken daily. In similar cases, we have found the Syrup of the Phosphate of Strychnia, Iron and Quinia, of unquestionable utility. Iron, the use of which seems to be indicated by reason of the evident anæmia which exists, can accomplish no useful purpose, until the blood-making organs are put into a condition for the proper performance of their functions.

*Methodus Medendi.*—It would scarcely be proper to omit mention of the recent discoveries which throw light upon the *methodus medendi* of quinine and its salts. Nevertheless, we must not forget—in the language of the philosophical Renouard—that “the merit of a therapeutic treatise does not consist in ascribing to remedies imaginary virtues in connection with this or that medical doctrine, but in keeping strictly to the results of pure observation.” Made with fidelity and recorded with accuracy, observations of therapeutical effects survive the destruction of systems and theories with which they may be connected from time to time. But in an intelligent revision of the therapeutic uses and abuses of quinine, Dr. H. Bence Jones’ discovery of “animal quinoidine” in the textures of animals, must have due recognition, not because this discovery enlarges and renders more certain the applications of quinine to the treatment of diseases, but because it proposes to explain its *methodus medendi* in a demonstrable, scientific manner. We should hail with delight all those improvements and discoveries which tend to establish medicine within the domain of the exact sciences.

Dr Bence Jones discovered that a substance resembling quinine—animal quinoidine—“can be found everywhere, by treating any

animal substance, first with dilute acid, then neutralizing with alkali, and then extracting with ether," that this natural fluorescent substance, "by its mode of extraction, and by its remarkable action on light, is very closely related to quinine." Having demonstrated the existence of animal quinoidine, Dr. Jones asks,—“Assume that a substance like quinine, exists during health, in the textures, can its rapid destruction and removal through the action of marsh miasm, give rise to ague? Does quinine cure ague by furnishing a substance which retards the changes which go on in the textures? and in the well known property of arsenic to preserve organic substances, have we also the explanation of its power in curing ague?”\* Researches complementary to those pursued with such distinguished success by Dr. Jones, have been undertaken in this country, by Drs. Edward Rhoads and William Pepper.† These gentlemen have attempted to demonstrate “whether there might not be, as an attendant upon the pathological processes in malarial disease, a rapid and marked diminution in the amount of animal quinoidine naturally existing in the tissues.” Their conclusions are embodied in the following:

“This series of observations, though unfortunately limited, owing to the rarity of cases which had not received more or less of one of the cinchona alkaloids before coming under observation, seems to indicate, by the uniformity of the results obtained, a close connection between the diminution of ‘animal quinoidine’ and malarial disease. Whether such diminution be invariably a consequence of the action of the miasmatic poison in the human body, can however, only be determined by a more extended course of investigation. Still less can we attempt to deduce from the facts here presented, any satisfactory estimate of the influence of the various types of malarial disease, or of the duration of the disorder. But it would appear probable, as from cases II and VIII, that a comparatively short time suffices to effect a marked reduction in the normal amount of the fluorescent substance.”

Dr. Bence Jones has shown that the introduction of quinine into the organism, causes a rapid increase of the animal quinoidine. To render the demonstration complete, it remains to be shown that the absence or destruction of the fluorescent substance found in the textures in the natural state, is the cause of periodical fever, and

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\* Medical Times and Gazette, Aug. 18, 1866.

† Penn. Hospital Reports, p, 269, et seq.

that malaria prevents the conversion of albumen into animal quinoxaline, as supposed by Dr. Jones.

That these conditions have some relation to the production of periodical fever, is evidenced in the extraordinary development of pigment matter in the blood, and in the escape of albumen through the Malpighian tufts of the kidneys. Further, it will be necessary to prove that the fluorescent substance is not formed, or that existing, destroyed, only in those diseases in which quinine manifests the power of specificity. These facts being demonstrated, the mode in which quinine cures, will then be perfectly plain; but when this is accomplished, how shall we explain the *modus medendi* of arsenic, apiol, narcotine and other anti-periodic remedies?

These investigations only furnish us an explanation of a method; they do not add to our means of cure. So far as the therapeutic uses and abuses of quinine are concerned, they do not extend the boundaries of existing knowledge; but the least practical fact of science, is often the origin of most important results. The investigations which will follow the discovery of Dr. Jones, may lead to great improvements in our knowledge of the *modus operandi* and of the *modus medendi* of remedial agents—subjects the most uncertain and difficult in the whole range of medical science.

#### PHYSIOLOGICAL EFFECTS.

The action of specificity, cannot, in general, be explained by the effects observed when a remedy is exhibited in the physiological state. Nevertheless, a careful study of the physiological effects, must precede the rational therapeutical employment. Clinical observation and experiments must correct the errors arising from the difference in effects produced in physiological and in pathological states. "Methodical empiricism," is, according to Renouard, the true foundation of therapeutics, but whilst admitting the value of empirical facts, we should not underrate the importance of a knowledge of the physiological effects of remedies, for the use of many of the most approved agents has been derived from observation of their action in a healthy organism.

*Absorption.*—That quinine is absorbed into the blood has been so conclusively demonstrated, it were hardly necessary to do more than simply affirm the fact. The manner of its absorption and the rate and degree of elimination, are debatable questions, in respect to which it may be desirable to offer some new observations.



**Experiment 1st.** Ten grains of a solution of sulphate of quinine were thrown into the peritoneal cavity of a cat. On the following day not a trace of the salt could be detected in the serum found in the cavity.

**Experiment 2nd.** Five grains of the ethereal solution of quinine were thrown under the skin of the thigh of a cat. In twelve hours distinct traces of the alkaloid were discovered in the juices of the parts.

**Experiment 3d.** Same quantity as in preceding experiment, injected subcutaneously, but in twenty-four hours it had disappeared. The juices of the parts were not examined for fluorescence.

**Experiment 4th.** Took at 6 P. M., 20 grains of the sulphate made into pills. Passed some urine, 10 oz., in an hour; at 10 o'clock, passed 2 oz., and at 12 o'clock  $\frac{1}{2}$  oz. Then retired, and on rising evacuated the bladder, discharging nearly four ounces. These specimens gave the following result:

Maximum amount of quinine obtained from urine, passed at 12 M.

Minimum, from urine passed in the morning.

No trace of alkaloid in urine passed at the end of the first hour.

Whole amount of alkaloid recovered, 8 grains.

No doubt the elimination continued for twenty-four or more hours, but circumstances prevented the collection of the urine. As elimination occurs from the mucous surfaces in various situations, it is difficult to estimate in this way, the amount which remains in the organism. To arrive at an approximate result, I preserved and examined all of the urine (experiment 5th), passed by a patient in 36 hours, to whom had been administered 20 grains of the sulphate for the cure of a tertian intermittent. I recovered from this but 8 grains of the alkaloid. The amount appropriated by the tissues was estimated at 5 grains, but there are many sources of fallacy in such a method. We are the less concerned about this, however, for the reason that Bence Jones by his nice processes, has been enabled to resolve this question with a degree of precision not before attainable. He traced the passage of quinia into the various tissues of a guinea pig. The following extracts embody his results:

"When sulphate of quinine is taken, like lithium and other substances which I brought before you last year, it rapidly passes from the blood into the textures.

"Even in a quarter of an hour, after four grains of sulphate of quinine, the fluorescence may rise to 75 grains to 100 litres. It is

found in the greatest amount in the liver and kidney; rather less in the blood, urine and muscles; still less in the brain, nerves and bile; and is perhaps even in this time increased in the lens of the eye.

"In three hours the maximum effect of the quinine may be reached. It amounts then to from 100 to 200 grains of quinine in 100 litres. \* \* \* In six hours the amount of fluorescence was rather less than in three hours. In twenty-four hours it was considerably less than half as much as in three hours. In forty-eight hours, except in the liver and blood, there was but little more fluorescent substance in the textures than naturally existed there. And in seventy-two hours the liver showed no trace of increase of fluorescence. Hence in fifteen minutes, the quinine had passed everywhere. In three hours it was at its maximum and remained in excess for six hours. In twenty-four hours it was much diminished, and in forty-eight hours was scarcely perceptible."\*

These results, obtained by an examination of the degree of fluorescence, correspond very closely with our conclusions based upon an observation of the effects of the remedy upon the organs of circulation.

*Influence in the metamorphosis of tissue.*—The effects of malaria upon the blood and textures, are early exhibited in a great increase of uric acid and the urates, and in the appearance of albumen in the urine. The excess of uric acid and urates, indicates rapid waste of tissue and deficient oxidation. In all cases of malarial poisoning, it will be found that these evidences of disorder of the secondary assimilation, are present in a greater or less degree. They were exceedingly well marked in the subject of experiment fifth. In this case, as indeed in all others examined, there occurred a most prompt disappearance of the uric acid and the urates and a corresponding increase in the amount of urea, after the administration of quinine.

Quinia therefore appears to promote oxidation in the tissues, or the normal metamorphosis, but it does not yet appear whether this is a result of its power to neutralize malaria or of the simple addition to the textures of a principle, (animal quinoidine) necessary to their nutritive changes, and which is destroyed by the toxic agent circulating in the blood.

*Effects upon the Nervous System.*—There are two factors, the character of whose action is known, by the aid of which we may

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\* Medical Times and Gazette, op. cit. August 16, 1866.

form an estimate of the mode of action of quinine upon nervous tissue. The first result of an increase of the fluorescent substance in the brain, must be an increase of oxidation; the second, an interference with the production of nervous force, the result of diminished oxidation.

When small doses of quinine are taken by a healthy individual, at sufficient intervals to permit the elimination of one to take place before another is introduced, a feeling of comfort, of increased power, an undefinable exhilaration, not, however, considerable, is experienced. In the case of an individual who had long been accustomed—not however for the prevention of malaria—to take several times each day, a grain dose of quinia in a little whisky, this effect seemed to follow; at all events, he assured the writer, that the influence of the whisky without the quinine, was not what his nervous system craved.

The writer, although fully conscious of the difficulty of correctly estimating subjective sensations, has perceived these effects by the use of small quantities of quinine. A slight degree of fullness of the head, an increase in the pulse rate, a sensation of calm, an elevation of ideas and vigor of thought, seem to be produced in the physiological state. We have subjected these effects to an experimental test. If small quantities of quinine— $\frac{1}{2}$  grain—be occasionally thrown under the skin of a cat, it will be found that the animal departs from its ordinary moods, that it becomes more playful and lively, and that its eye becomes brighter.

If small, medicinal doses of quinine be taken frequently—2 grains every hour for 8 hours—by the fourth hour, a decided sense of fullness in the head, *tinnitus aurium*, flashes of light before the eyes, intolerance of light, are experienced, and these effects are maintained during the whole period of administration. The pulse is increased in frequency, and a slight elevation of temperature may be noted. Different effects follow the introduction of the whole amount at one dose. A prompt accumulation of the quinine takes place in the nervous centers; the functional activity of the cerebrum, cerebellum, and medulla oblongata is lowered; the special senses are obtunded; hence the subjective sensations of the patient—the pain and uneasiness produced by the remedy—are rendered much less acute, and of course more endurable. When 20 to 30 grains are administered, the patient soon falls into a state of quietude; he does not sleep; he does not think; he has a confused sense of pressure in the cranial cavity; he feels best and is most content to

lie perfectly still. The special senses are affected as follows: the sight is dim, the pupil dilated; the hearing obtuse; the smell faint; and the taste unnatural. The power of voluntary motion is somewhat impaired; the gait is staggering, but this is due in part to the giddiness and to the derangement of the peripheral nerves—the senses of touch and pain being perverted.

The physiological effect most interesting in the therapeutical sense, is the influence of large doses of quinine upon the organic nervous system—upon the action of the heart, the contractility of the arterioles, and the temperature. These effects we have studied *in propria persona*—(Experiment 4th.) The following are the effects observed upon the pulse, respiration and temperature when 20 grains of sulphate of quinine were taken.

| Pulse. | Respiration. | Temperature at 6 P. M. | Temperature of apartment, 75° F.       |
|--------|--------------|------------------------|----------------------------------------|
| 70     | 18           | 97·8°                  | at 6 P. M., when experiment commenced. |
| 71     | 18           | 97·9°                  | at 7 “                                 |
| 67     | 17           | 97·2°                  | at 8 “                                 |
| 65     | 16           | 97·0°                  | at 9 “                                 |
| 67     | 17           | 97·4°                  | at 10 “                                |
| 68     | 17           | 97·5°                  | at 11 “                                |
| 70     | 18           | 97·9°                  | at 12 “                                |

If a frog, prepared for examination, of the circulation in the web of the foot, by the microscope, receive two grains of quinine under the skin, (*Experiment 6th*) the following appearances will be noted: diminution in the caliber of the vessels under examination; cardiac impulse less strong; current more uniform, but not retarded in point of velocity. If the thorax be carefully opened and the heart exposed, (*Experiment 7th*) and quinine be then injected subcutaneously, a marked decrease in the force and frequency of the cardiac pulsations will be noted. This experiment should be compared with another in which the heart is exposed, no quinine having been introduced. Somewhat different results are observed if a warm-blooded animal be the subject of experiment.

*Experiment 8th.*—The heart of a kitten was carefully exposed whilst under the influence of chloroform. As soon as the effect of the anæsthetic subsided, five grains of quinia (the ethereal solution) were thrown under the skin. Within a few seconds, there occurred suddenly a tumultuous action of the heart—the force and frequency of its pulsations were increased, and the rhythm disordered; this increased action was followed by the opposite effect in about ten minutes, when the movements became slow and orderly and the force diminished. That the first effect—or stimulating action of quinia—was not due to the ether injected, was shown in

another trial in which the solution of the sulphate was employed. It remains to be shown that the act of injecting a fluid subcutaneously, which of course occasions more or less pain to the animal, is not the cause of the primary effect observed. This was shown (*Experiment 9th*), by administering the injection when the animal was anæsthetized—an evident increase in the force and frequency of the cardiac pulsations being then observed, but not so marked as in the preceding experiments.

In all of these observations, the respirations were seen to be lessened in frequency, and increased in volume. The temperature of the surface was lowered from .5° F. to 1° F. These results correspond very closely with those obtained by an examination of the effects in the physiological and pathological states. Is there any explanation of the effects of quinine upon the heart, the respiration and the temperature?

M. Eulenberg\* has attempted to show that the effect observed upon the heart, is not a result of an influence exerted upon the *par vagum* and *medulla oblongata*, and that it is still produced when the vagi are entirely divided. He considers the result due to the action of the agent upon the muscular tissue, and the excitomotor ganglia situated in the substance of the heart itself.† As the pneumogastric is generally conceded to be the inhibitory or regulator nerve of the heart, it might have been supposed that the inhibitory action of quinine was to be referred to the influence of quinine upon that nerve. The experiments of M. Eulenberg prove that this is not the true explanation. A stimulating action is undoubtedly exerted by the sympathetic system upon the movements of the heart. Reflex action through this system, as Bernstein has shown, may stop the movements of the heart. In this fact we have an apparent explanation of the inhibitive effect of quinine.

M. Eulenberg has noted another fact which we have confirmed by clinical observation and by experiment: i. e. the lowering of the general sensibility. He observes upon this point—"Some minutes after the poisoning, simultaneously with the feebleness of respiration, there may be observed in animals an absolute lack of perception of external irritants." We have noted (*see experiment 4th*),

\* Archives Générales, April, 1867, p. 494.

† This explanation is supported by the fact that if a solution of quinine be injected into the veins of an animal, paralysis of the heart soon takes place. All the systematic writers admit this, and we have verified it by actual trial.

a reduction of the external temperature in the human subject, and have stated as a clinical fact, that large doses of quinine diminish obviously the sensibility to irritants. These are correlative facts. The diminution of sensibility is a peripheral lesion, occasioned by lessened nutritive changes in the periphery. The influence of the sympathetic nervous system over the nutrition of tissue is too well known to require explanation. In addition to these physiological and pathological facts, we have the exact chemical determination of Dr. Bence Jones showing how the normal production of animal quinoidine is temporarily arrested by the "incoming quinine, causing probably, a stoppage of the fresh formation of quinine from albumen." It is unnecessary, however, to enter upon any theoretical explanation; all the facts go to show that the action of quinine is chiefly exerted upon the nervous system of organic life. As the animal quinoidine is increased in the brain as in other textures of the body when quinine is administered, it is reasonable to suppose that the nutritive changes in this organ are also interfered with and the production of nerve force diminished. The lessened activity of the special senses, and the lowering of the general sensibility, together with the other subjective phenomena of *cinchonism* would appear to render it probable that these effects are due to the increase of the quinoidine in the gray matter; but as we have seen, the depressions of the heart's action, the decline in the temperature of the surface, etc., are more certainly the result of the impression of the quinine upon the vaso-motor nerves.

*Effects upon the Blood.*—The observations heretofore published, as respects the influence of quinine upon the blood, are exceedingly contradictory. We have therefore devoted much time and labor to the elucidation of this question. In the human subject, it is of course difficult to make observations free from sources of fallacy. The existence of disease, especially a disease like malarial which so rapidly despoils the blood, vitiates the result. There are insuperable difficulties in the way of testing the influence of quinine upon the blood in the physiological state, for no experimenter would be willing to subject himself to the serious injuries which such a course of investigation would involve. There are two methods, then, which may be pursued: 1st, to make observations on animals; 2d, to estimate the influence of quinine when used for a considerable length of time in diseases not of malarial origin. One method may be used to correct the errors of the other.

The results of experiments on animals have been so uniform that it will be unnecessary to repeat the details. The mode in which the quinine is introduced does not appear to vary the effects. The proportion of red corpuscles was diminished and the fibrin somewhat increased; excrementitious products—uric acid, creatinine, cholesterine, etc., were increased. The clot had little firmness, and manifested a strong tendency to putrefactive decomposition.

*Effects upon the Primary Assimilation.*—Small doses of quinine and its salts, produce the effect of a stomachic tonic, provided the remedy be not too long continued. Habitual use of small doses, or large doses even when occasionally administered, derange digestion and impair the primary assimilation. Irritation, and even inflammation of the mucous membrane are produced by large doses. The bad influence of quinine upon the blood when long used, is often due to the local irritation set up in the stomach and intestinal canal. Wasting, emaciation, and hectic we have seen result from the use of large tonic doses, kept up for several months. The symptoms observed were a peculiar pallor, feebleness of the muscular system, trembling; the urinary secretion was changed in character, being loaded with urates and phosphates: the bladder was irritable, the skin dry, the evening temperature was elevated and the pulse was small, quick and excitable. Some of these symptoms were due to the influence of the remedy upon the nervous system; some to the derangement of the primary assimilation; and others to the interference in the metamorphosis of tissue.

There is an apparent contradiction in the therapeutical and physiological effects, as respects the influence in the retrograde metamorphosis of tissue. It was asserted that the quinine administered for the cure of malarial fever, promoted oxidation of tissue and the conversion of uric acid into urea. Administered in the physiological state, we find that imperfectly oxidized products accumulate in the blood. This is not a real contradiction. In the one case animal quinoidine being deficient in the textures, and in the other, being in excess, the normal metamorphosis is disturbed, and imperfectly oxidized, or immature products are the result. When in malarial fevers, the animal quinoidine is raised to the normal standard, by the ingestion of quinine, tissue changes take place more perfectly.

## RATIONAL THERAPEUTICS.

A study of the physiological effects of quinine, will serve no useful purpose unless we obtain some certain indications of its therapeutical uses and abuses. Are we now in a position to use quinine in disease with greater certainty and success, by reason of a more thorough knowledge of its mode of action in the physiological state? We believe that this question may be answered in the affirmative. Small doses of quinine administered at suitable intervals, produce those effects to which the term *tonic* is applied. For a temporary purpose, quinine may be used as a tonic, a stomachic or restorative, but the prolonged use is objectionable, and defeats the object to be accomplished. The truth may be expressed as follows :

The tonic influence of quinine is temporary, and should therefore be employed, only when a prompt effect is required. Its prolonged use results in spanhæmic, rather than hæmatinic effects. As a tonic, it is indicated in acute rather than in chronic diseases.

*Fevers.*—A careful examination of the large number of facts which have now been accumulated, and considerable personal experience and observation, have satisfied the writer of the inutility of quinine, in the treatment of Typhus and Typhoid fevers. Not only has this remedy no influence over the course and duration of these affections, but its irritant effects upon the gastro-intestinal mucous membrane, and its inhibitive influence exerted through the organic nervous system, upon the heart and lungs, render it positively injurious. This remark is true, not only of the method proposed by Dr. Dundas, of Liverpool, which consisted in attempts to shorten the duration of these diseases by large doses of quinine, but true also, of the practice now much in vogue, of giving repeated small doses for the production of a tonic effect. We have seen the dryness of the tongue, the diarrhœa, the subsultus, and the delirium of typhoid fever, increased so constantly by it, that we do not hesitate to declare the administration of quinine in this disease an abuse of that remedy.

In certain parts of the United States, the prevalence of a mixed type—typho-malarial—has seemed to justify the use of quinine in continued fevers; but even in this composite disease, it is used more freely than necessary. It becomes less and less effective, as the *typh* element predominates. In malarial regions of the interior valley, as populations grow, the *typh* element in fevers be-



comes more pronounced, and the propriety of the use of quinine less and less evident. When the malarial element predominates, the use of quinine is indispensable; but the quantity should not exceed five grains at a dose, which may be administered daily, for six days. Nothing but evil results from the prolonged use of the remedy. The action of specificity will be wrought by the quantity above named; to give more will not only fail to benefit the patient, but will add to the existing lesion of the intestinal canal, an irritation of its own. We have found that by the rectum—by suppository, or by clyster—is the best channel through which to introduce the medicament into the organism, in cases of fever, thus avoiding the ill effect upon the gastric mucous membrane.

For the pneumonia which not unfrequently complicates typhoid fever, quinine is a valuable remedy; but the circumstances under which it is indicated, and the manner of employing it, will be subjects for consideration hereafter.

*Cerebro-Spinal Meningitis.*—The employment of quinine in this disease has heretofore been entirely empirical. By some, quinine has been given in large doses, on a theoretical view of the malarial origin of cerebro-spinal meningitis; by others, as a part of the general supporting plan of medication. Success has not attended the use of this remedy; nevertheless, it has its place in the treatment of this disease, and is, indeed, in our view, a remedy of the greatest value, if rightly employed. In the beginning of the disease, when the alterations of cutaneous sensibility first occur, and before the febrile movement has obtained much intensity, a full dose—20 to 30 grains—will moderate, in the most satisfactory manner, the violence of the disease. Given, during the progress of the case, in small or large doses, quinine not only does not lessen the severity and shorten the duration of the disease, but does serious mischief. If, therefore, a single large dose does not produce a good result, it is useless to repeat it, or to pursue a tentative plan by small doses.

The theory governing the use of quinine in this way, is based upon its physiological effect upon the vaso-motor nerves. Whatever may be the correctness or incorrectness of the theory, the practical fact remains, that this method of using quinine has, in the few cases in which we have had the opportunity to employ it, been signally effective.

*Acute Inflammation.*—The authorities agree as to the impro-

priety of using quinine during the acute stage of the inflammatory process. There are two conditions, however, in which, according to our experience, it is often exceedingly useful: the stage of congestion, or the formative stage, of an acute inflammation; and the stage of resolution. An attack of acute catarrh may be aborted by a ten grain dose of quinine, administered when the first symptoms appear. So, also, idiopathic pleuritis, pericarditis and peritonitis, may be rendered much more manageable, if not entirely cut short, by a large dose of quinine, given in the very incipency of these diseases; but it is necessary, in order to achieve so successful a result, that the stage of effusion or exudation be not reached. We have not observed any evil result to follow, in those cases in which the remedy failed to abort the disease. Opium or morphia may be combined with it, to accomplish the object in view more perfectly, but the effect of the quinine has been frequently tested in these cases, without the conjoined influence of the narcotic.

In inflammation of parenchymatous structures, we have not been able to obtain the abortive effect. This failure may have been due to the difficulty of recognizing the earliest symptoms of inflammation. In the stage of resolution of inflammation, and in congestion without the formation of inflammatory products, a large dose of quinine will often cure in the most speedy manner. These effects we have observed in pneumonia, which may be taken as the type of an inflammatory affection. Quinine is indicated in this disease when the chlorides re-appear in the urine. Twenty grains should be given, in four doses, at intervals of six hours, commencing when the evidence of the return of the chloride of sodium to the urine is satisfactory. Congestion of the liver, enlargement of the spleen and orchitis, we have frequently cured by a few full doses of quinine. The use of this agent in orchitis is especially satisfactory, because here we are enabled to observe the success or failure of the remedy, beyond question. In orchitis we have used it, when the organ has ceased to enlarge, and never during the time it was enlarging. Quinine ceases to be useful, whenever alterations of structures or exudations take place. It seems to cure, therefore, in these cases, by virtue of its influence over the vaso-motor nerves—a fact derived from a study of the physiological effects.

Influenced by these considerations, the writer has employed quinia with benefit, in several cases of cerebral disease, in which

he had reason to suspect the existence of that condition of the vessels of brain described so well by Behier, under the term—"aneurismal dilatations"—a varicose condition of the vessels, produced by atheromatous degeneration of the arterial tunics. We have had no experience in the use of quinine in those cases of congestion of the nervous centers, in which it has been proposed by Brown-Séquard.

*Neuralgic Affections.*—The lowering of the general sensibility, produced by large doses of quinine, affords a rational indication for its use in neuralgic affections. In the periodical neuralgic affections, of malarial origin, the curative power of quinine is unequivocal, but in this case the action is one of specificity. We are here concerned with its therapeutical applications in the treatment of neuralgia not of malarial origin. That it is curative in some of these cases, has been conclusively established, but the causes of its success or failure are not as well understood as is desirable. In general, it may be affirmed that quinia is successful, only against functional disorder of the sensory nerves, and is not effective in the case of centric lesion or irritation of the trunk of a nerve. To produce a curative effect in any case, it is essential that large doses be given; a decided impression must be made upon the nervous centre, presiding over sensation; hence ten grains must be considered as the minimum. In the case of neuralgic affections, not of malarial origin, the subcutaneous injection of morphia and atropia, is so superior in respect to promptness and efficacy, that the administration of quinine for this purpose must be considered an abuse, rather than a legitimate use of the remedy.

#### EMPIRICAL THERAPEUTICS.

Experience and observation have furnished us with some of the most important applications of quinine and its salts. Also, some of the greatest abuses of this remedy, are found amongst the empirical facts, the traditional lore of therapeutics.

The question of the value of a remedy in the treatment of a given disease, is invested with no little difficulty. So little is positively known of the natural history of disease, that it is often impossible to separate the *post hoc* from the *propter hoc*, and the constant tendency is, to confound the effects of the remedy with the natural progress of the case. Fully impressed with these difficulties, we have taken the greatest pains to estimate, in an impartial manner, the real value of quinine, in the treatment of the various affections in which it is now used.

*Periodical Affections.*—Quinine having demonstrated its curative power in periodical fevers, it was a reasonable presumption that it would be equally effective in other periodical diseases, in accordance with the axiom—"a remedy which has cured one disease, must also cure analogous diseases."

There are two classes of periodical affections in which quinine is employed :

In periodical affections of malarial origin ;

In other diseases occurring in an organism saturated with malaria, when the periodical type is ingrafted upon an otherwise continuous local or constitutional affection.

The periodical affections of malarial origin are due to the slow imbibition of malaria, without the production of the objective phenomena of fever. The malarial cachexia is induced, but instead of the normal ebullition of fever, there occurs some supplemental affection of the nervous system, or of the thoracic or abdominal organs.

*A. Periodical Affections of the Nervous System.*—We are embarrassed by a difficulty of diagnosis in these diseases, for the reason that the neuroses are essentially periodical in character, when no suspicion of a malarial origin can attach to them. The existence of the malarial cachexia, and the more uniform regularity of recurrence, will enable us to distinguish the neuroses of malarial origin, from the other functional disorders of the nervous system. The following are diseases of the sensory portion of the nervous system, which have been produced by malaria :

|                   |                    |
|-------------------|--------------------|
| Neuralgias,       | Cephalalgia,       |
| Tic Douloureux,   | Cervico-Occipital, |
| Cervico-Brachial, | Dorso-Intercostal, |
| Mammary,          | Lumbo-Abdominal,   |
| Crural,           | Sciatic,           |
| Gastralgia,       | Enteralgia,        |
| Hepatalgia,       | Nephralgia,        |
| Ovaralgia,        | Hysteralgia,       |
| Angina Pectoris,  | General Neuralgia. |

These various forms of neuralgia may occur as an expression of malarial poisoning, being substituted for the normal expression—fever—or they may assume the orderly periodical character, in consequence of having occurred in an organism already under the influence of the malarial cachexia. There are no means at present known to science, by which these may be distinguished, until ten-

tative experiments have been made by quinia. If they are of malarial origin, the action of specificity of quinine will speedily prevail against them; otherwise, this remedy will only modify the phenomena, and will not prove curative.

It may be positively affirmed, that these malarial neuralgias require for their successful medical treatment, the maximum doses; and the same fact is true of all the irregular manifestations of malarial poisoning. Small doses, frequently repeated, generally fail to cure; from 10 to 20 grains, according to the severity and obstinacy of the attack, are necessary, and the paroxysm should be anticipated from three to five hours; but it is not necessary to await the subsidence of the attack, for the pain ceases as the physiological effects of the remedy become manifest. The rule which we have indicated for the employment of quinine in fevers is equally applicable here.

The method by subcutaneous injection is the most effective way of applying the remedy. Either of the solutions already recommended for hypodermic use may be employed in the interval, but if the injection is to be made during an attack, the solution of sulphate of quinine should have added to it a sufficient quantity of morphia— $\frac{1}{4}$  of a grain to each injection. Of course, the selection of the locality of the injection will be governed by convenience, and need have no relation to the seat of pain, unless the prejudices of the patient interfere.

#### Disorders of Motility.

Epilepsy.

Chorea.

Laryngismus Stridulus.

Hay Asthma.

Locomotor Ataxia.

Asthma.

Hiccough.

Stricture of Urethra.

The difficulties in the way of forming a correct diagnosis, are much greater in these disorders of motility, than in the neuralgic affections. A correct conclusion can be reached only by a careful study of the attendant circumstances and previous history. The principles of treatment are the same as those already indicated for the disorders of sensation.

*B. Periodical Affections of Thoracic Organs.*—The Pneumonia of the South and South-West, which is a very common and fatal disorder, assumes the periodical character because occurring in organisms already surcharged with malaria. In the colored race, the true malarial pneumonia is somewhat more common than in

the white, probably for the reason that in the former, malarial fevers are not apt to occur.

The quinine does not appear to have specific action in either of these conditions, but the treatment by quinine has been a great improvement upon the antiphlogistic plan, which caused a fearful mortality. The large doses which are, by some southern practitioners, habitually employed in the treatment of malarial pneumonia, are not only unnecessary, but do positive mischief. We have already indicated the conditions in which quinine possesses a curative power:—in the stage of resolution when the chlorides reappear in the urine. During the stage of red hepatization, the continued use of quinine in large doses is harmful; small doses for the production of the so-called tonic effect, are negatively useful, because they take the place of the antimonials and mercurials formerly so much employed.

Pneumonia is very commonly an intercurrent disease, coming on during the course of chronic malarial poisoning. So far as the morbid anatomy of the lung is concerned, this form of pneumonia does not differ from the preceding, but the alterations which have been induced in various organs by the long continued action of malaria, render this intercurrent disease exceedingly formidable. The lavish use of quinine in this affection, as practiced by many physicians, is without justification—for, as we have seen, the changes induced in various organs are not at all under the control of this remedy.

*C. Periodical Affections of Abdominal Organs.*—The following are the intercurrent malarial disorders affecting the abdominal organs:

Diarrhœa,  
Dysentery,

Jaundice,  
Enlargement of the Spleen.

These are, sometimes, simply vicarious substitutes for febrile movements. Nothing can be more satisfactory than the use of quinine under these circumstances. More commonly, however, the diarrhœa, dysentery and jaundice, are results of the alterations in the intestinal glandular apparatus and liver, over which the quinine has no control. This fact is also exhibited in malarial enlargement of the spleen. In this affection quinine is supposed to be peculiarly effective, and to exert an action of specificity; but all who have observed carefully, know that quinine exhibits a curative power only in cases of simple enlargement, and is inoperative against chronic splenitis or the "fleshy spleen."

*As a Tonic.*—Quinine is much and indiscriminately used, in all forms of disease in which a tonic is required. For a temporary purpose, for sustaining the powers of life in fevers, in the exanthemata, and in acute inflammatory affections in general, its use as a tonic is rational, and has the sanction of experience. The existence of stomach and intestinal disorder, of certain states of the tongue—as a dry, brown and fissured, or a smooth and glossy state of that organ—contra-indicate its employment. But if we examine without prejudice, its influence in these states of the system, we shall be convinced that the apparent good effect of quinine is rather negative. To the radical change which has occurred in the last quarter of a century, in the treatment of disease, is to be attributed the good results of modern practice, and not to the use of any particular agent. Quinine being one of the agents most relied on in pursuing the new method, has had ascribed to it, therapeutical powers of which it is not possessed. Its employment frequently degenerates into abuse. The irritant action which it exerts upon the gastro-intestinal mucous membrane, and the derangement of both the primary and secondary assimilation which results from its continued use, renders its therapeutical employment in many of these cases positively injurious.

The same facts are applicable to the determination of the value of quinine in the treatment of the various chronic affections in which it is now so freely employed. The popularity of this remedy, is a direct result of the change of medical practice from the anti-phlogistic to the expectant and supporting plan of medication. The good results attributed to quinine are really due to the tonic and supporting regimen. In no disease is this more strikingly exemplified than in scrofulous ophthalmia. Formerly treated by lowering measures as an inflammatory affection, the results were most unfortunate; cinchona was afterward used empirically with great success; at the present time it is known that nutritious diet with general supporting measures are equally effective.

Is quinine capable of that sustaining influence to which the term *tonic*, is really applicable?

A tonic is a remedial agent capable of accomplishing either of two objects:

Improving the primary assimilation, and blood-making process.

Restoring to the blood some principle in which it is deficient.

To the first category, belong the mineral tonics, especially iron and manganese, the mineral acids, the alkalies under certain con-

ditions, and the stomachics. To the second, belong iron, cod-liver oil, (molecular basis of the chyle), and nutrients generally.

It is evident that quinine cannot be classed with either of these two varieties of tonic medicines. Its continued use deranges the primary assimilation and the blood-making process; it does not restore to the blood, material in which it is deficient.

*In Acute Rheumatism.*—The treatment of rheumatism by bark introduced by the English medical practitioners at the close of the last century, was revived by the French, who substituted quinine. This practice has found an able advocate in M. Briquet, the author of an elaborate treatise on quinine. Sixty grains a day for three or four days were given, with the expectation of jugulating the morbid action. Serious symptoms having been induced in many cases, and death having resulted occasionally, it was discovered that these large doses were unnecessary, equally good results having been accomplished by a smaller quantity. Great success was claimed for this method. It was certainly a great improvement on the old method of repeated bleeding, and the lessened duration of the disease when treated by quinia seemed fairly attributable to this remedy. The profession was not then in possession of facts which rendered a correct conclusion possible. Nothing was known positively of the natural history of disease. In order to form a just estimate of the value of a remedy in the treatment of acute rheumatism, we must know something of the natural history of that disease. The physicians of Guy's Hospital\* having shown us that acute rheumatism left to itself, has a tendency to amend about the seventh day and to get well about the fourteenth, we know the inutility of giving quinine in that disease, with a view to a curative effect. Nevertheless, in cases of protracted convalescence, quinia in conjunction with other appropriate medicaments, is sometimes useful.

*In Sweating.*—The administration of quinine for the relief of sweating, has long been a well established empirical practice. Its use in that case, is based upon the incontestable principle—"a remedy which cures one disease, will cure all analogous diseases." This axiom is the foundation of instinctive, as well as rational empiricism. Experience not only confirms the truth of this principle in respect to the curative influence of quinine in cases of sweating, but we have a satisfactory explanation of the *modus medendi* in certain of the physiological effects of that drug.

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\* Guy's Hospital Reports, Vol. xii.



The sweating which accompanies malarious disease, the perspirations of phthisis, and that relaxation of the skin accompanied by profuse secretion of the sudoriparous glands, which occurs in states of debility, are all more or less under the control of quinine. To the influence of this remedy over the vaso-motor nerves, is to be attributed the curative power.

#### COMPARATIVE VALUE OF THE SALTS OF QUINIA.

Variety of combination, has not increased the therapeutic power of quinine. It appears to be of little consequence with which particular acid the base is united. It has been supposed that combination with kinic acid—a form in which it exists in the cinchona barks—would present some advantages, but experience has shown that this is not the case. So, also, it was believed that the ferrocyanate and the arseniate would possess some special powers, but these expectations have not been realized. For ordinary purposes, the sulphate is the best salt for internal use, and for subcutaneous injection, the solution of the alkaloid quinia in ether is preferable.

If it be desired to aid the action of quinine by iron, by arsenic or other anti-periodics, it is better to combine them in extemporaneous prescription.

The Indian medical officers to whom we are indebted for many improvements in therapeutics, have lately shown that the cure of malarious diseases may be accomplished more successfully by the conjoined use of quinine and arsenic, than by either agent alone. They do not, however, prescribe the arseniate of quinine; neither do they combine these remedies in the same prescription. Quinine is administered in large doses at long intervals, and the arsenic in the form of Fowler's solution, three times a day. The efficiency of this plan of treating malarious diseases, we have confirmed by repeated observations.

The tannate has been, and is still preferred by many practitioners because less objectionable in respect to taste, but its difficult solubility in the gastric juice renders its utility exceedingly questionable. The valerianate is nauseous as to odor, and although less irritant in its local action than the sulphate, is rather inferior in therapeutic power, to the latter. The supposed anti-spasmodic properties of valerianic acid, rest upon no certain foundation; and if admitted, it does not follow that the valerianate of quinia possesses them.

## SUBSTITUTES FOR QUINIA.

A variety of considerations give interest to the investigation of the substitutes for quinine. The increasing cost and scarcity of the cinchona barks has awakened no little solicitude as to our future supply. Fortunately the naturalization of the *Cinchona* trees in India and the improved means of culture by which the percentage of the alkaloids in the barks may be increased, render it certain that, hereafter, the quantity of this indispensable medicine will be ample for all purposes. Independently of this, however, it is desirable to increase the resources of therapeutics. Cases occur, in which from idiosyncrasy or accident of disease, quinia cannot be administered. It is important, therefore, that the medical armamentarium be provided with additional remedies for the treatment of periodical diseases.

It would serve no useful purpose to enter with minute particularity, upon a consideration of the anti-periodic power of arsenic. Nevertheless, there are certain practical points in relation to the administration of quinine and arsenic respectively, which require elucidation. For the treatment of acute malarial poisoning, quinine is unquestionably the appropriate remedy, but arsenic may be advantageously combined with it as already indicated. In chronic malarial poisoning, the relative value of arsenic is much greater. Certain structural alterations peculiar to this state, not at all under the influence of quinine, are cured by arsenic. We refer to the fleshy spleen, and the thickened and elevated solitary glands and patches of Peyer. These alterations of the intestinal glandular apparatus find expression in an intractable form of chronic diarrhoea. A large personal experience warrants the assertion that this troublesome disorder is more certainly curable by arsenic than by any other remedy.

The salts of cinchona, salicine and bebeeria, possess no advantages over quinine and are greatly inferior in curative power.

Next to quinia and arsenic, we have found narcotine to be the most valuable of the anti-periodics. As it is much less irritant, it is preferable in acute cases accompanied by stomach and intestinal disorder. In some obstinate chronic intermittents, we have had lately, considerable success with narcotine.

## CONCLUSIONS.

In passing over the various topics, conclusions were generally stated after an examination of the questions involved. It may be well now, however, to sum up briefly in a tabular form the facts developed in the course of this essay.

|                                |                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Specificity.</i>            | { Quinine is prophylactic, but power declines with use.<br>Cures acute malarial poisoning.<br>Without influence upon the structural alterations of chronic malarial poisoning, and only effective temporarily against the febrile movements.<br>The discovery of animal quinoidine only serves to explain the <i>methodus medendi</i> , but does not add to our knowledge of the therapeutical uses. |
| <i>Physiological Effects.</i>  | { Quinine is rapidly absorbed and excreted. A part remains in tissues, increasing animal quinoidine.<br>In pathological states, (malarial poisoning), increases oxidation; in physiological, retards oxidation.<br>Exerts an inhibitive influence upon heart and arterioles.<br>Impairs primary assimilation, and damages the blood.                                                                 |
| <i>Rational Therapeutics.</i>  | { In states of congestion—Incipient inflammation. In stage of resolution.<br>Methodus Medendi—Through vaso-motor nerves.<br>In neuralgic affections.                                                                                                                                                                                                                                                 |
| <i>Empirical Therapeutics.</i> | { In periodical diseases.<br>In intercurrent diseases.<br>As a tonic.                                                                                                                                                                                                                                                                                                                                |
| <i>Abuses.</i>                 | { In chronic malarial poisoning.<br>In fevers.<br>In acute rheumatism.<br>As a tonic in acute and chronic diseases.                                                                                                                                                                                                                                                                                  |

ARTICLE V.

**TREATMENT OF PARALYSIS BY HYPODERMIC  
INJECTIONS OF STRYCHNINE,**

**WITH REMARKS ON INFANTILE PALSY.**

Read before the Convention, May 23<sup>d</sup>, 1868.

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THE subject I am to bring before the notice of the Convention is not new, although it has scarcely attracted the attention it deserves. With the exception of Charles Hunter, late Surgeon to the Royal Pimlico Dispensary, who has just published in the British and Foreign Medico-Chirurgical Review, for April, 1868, an interesting communication, "On strychnia hypodermically administered in paralytic affections," and the two French physicians, whose researches will be presently alluded to, I am not aware of any other writer making particular reference to the value of subcutaneous injections of strychnine for the relief of paralysis.

Not to spend valuable time, I will endeavor to present an abridged account of the principal cases bearing on this important question of therapeutics, and other no less interesting and heretofore undecided points, relative to the pathology of infantile palsy.

In 1859, Dr. Behier, of Paris, read before the Imperial Academy of Medicine, a paper on the use of medicinal hypodermic injections for the treatment of neuralgia and other nervous affections. Reference was made in this communication to the successful injection of a solution of 30 centigrams of sulphate of strychnia to 30 grams of distilled water, in seven cases of paralysis, of which four were cured and the remainder improved. These latter were two instances of hemiplegia from cerebral hæmorrhage, and one of paraplegia from diphtheritic angina, with paralysis of the palate and mydriasis. One patient, with paralysis of the right leg, recovered

after the very first injection, along the course of the sciatic nerve. Three others were cured—one with four, and the rest with six injections. One of these latter had paralysis of the deltoid, from lying on the arm during sleep. In one female paraplegic the subcutaneous application of 100 drops of the solution was practiced, together with the internal exhibition of six grains of the extract of *nux vomica*. Recovery was obtained after paralysis of two and a half years standing.

Prof. Courty, of Montpellier, ("On the employment of local injections in neuralgia, paralysis, and other affections," *Journal de Medicine et Chirurgie Practiques*, Nov. 1868,) injected a few drops of a solution of strychnia along the course of the facial nerve, between its exit through the stylo-mastoid foramen and its crossing over the neck of the condyle of the lower jaw. The injections were repeated each second or third day, and from three to six sufficed to remove entirely; within from ten to fifteen days, all traces of paralysis in every muscle of the face. The patients were one male aged 56, and two females aged respectively 25 and 22. In every instance recovery was complete. Professor Courty has also recorded a case of paralysis, of a year's standing, unsuccessfully treated by other means, which readily yielded to a few subcutaneous injections of strychnine in the lower part of the spine.

Seven cases are included in the recent paper of Mr. Hunter. Four of hemiplegia, one of paraplegia, one of paralysis of the arm, and the last of jactitation with pain, sickness, and debility of the spine. In the case of paraplegia attended with symptoms indicative of myelitis, ten injections produced a great increase of walking power with diminution of the numbness and trembling of the limbs. Three hemiplegics are reported as having recovered from their trouble. A fourth, with great improvement, remained yet under treatment. In one of these patients, hemiplegia was consequent upon a bullet having entered near the posterior border of the right scapula, and lodged somewhere close to the spinal marrow. The instance of paralysis of the arm was due to bruising and dislocation of the shoulder joint. Recovery took place after seven punctures. The doses usually employed were the  $\frac{1}{4}$  of a grain of the sulphate of strychnia, and in one case of hemiplegia, they varied from  $\frac{3}{16}$  to  $\frac{7}{16}$  and  $\frac{8}{16}$  of a grain. Four months after being cured, this patient had cramps in the leg, which were removed by the hypodermic injection of  $\frac{1}{4}$  of a grain of morphine. The disease was respectively of six and of two and a quarter years standing, in two of the hemiplegics.

The remarkable results in the foregoing instances, have caused me to present this summary of their most striking points, before I describe the principal examples coming under my observation during the past five years. I have selected them as evidences of subcutaneous injections, proving by themselves an efficient means of treatment; as not infrequently, in other cases than paralysis, I associate this and other means, when I desire to obtain some of the effects to be hereafter described.

CASE I. In 1864, a soldier came into one of my wards, at the Central Park U. S. A. General Hospital, New York, who had become paraplegic after being all night on picket duty, in water up to his knees. He complained a great deal of formication and numbness in the feet. The limbs were cold, bluish, and had lost tactile and painful sensibility up to the knees. He could be pinched, pricked, and burned, in both legs, without being conscious of it; yet, he would complain of deep-seated pain in the feet and legs. His urine was abundant with lithates. His bladder and bowels were torpid. The internal use of strychnia and tonics, with the application of electricity to the limbs, slowly relieved their paralyzed condition. I then injected hypodermically  $\frac{1}{16}$  of a grain of sulphate of strychnia in each leg below the knee. The operation was repeated four or five times, at intervals of three days, and from the first injection, the patient, to his great joy, could walk without crutches, and found himself eased of formication in the legs, which finally recovered their power. The effects noticed after the first puncture, were, a general feeling of warmth, with marked diaphoresis, a peculiar countenance, with a sardonic smile, respiration increased, and at times quite sighing, diminution of numbness and pain, with return of sensibility in the skin of the legs, which became firmer, the patient being at once able to get up from the chair and walk around without supporting himself. These prompt results were witnessed by Dr. G. S. Winston and my other colleagues at the Hospital.

CASE II. A gentleman, after sudden exposure to cold, whilst much fatigued playing tenpins, became paralytic in the right leg. The paralysis, from the onset, was associated with pain, which soon became so intense that the patient lost all rest, being in constant agony. It was thought that he had articular inflammation. Blisters over the hip joint, and narcotics were frequently resorted to, but with slight temporary relief. Meantime, the muscles of the thigh and leg began to waste, the hyperæsthesia per-

sisting to such a degree that the slightest touch of the skin of the leg would give him great pain. In this intolerable condition he determined of his own accord, to try electricity, and felt some comfort upon its application. He consulted me at this time. He was pale and unhealthy looking—the pulse weak and 85. The right limb was wasted, cold, and still very sensitive, especially on the anterior and external parts of the leg. The urine was acid, of normal specific gravity, and contained chlorides in excess. I continued the application of electricity, after having  $\frac{1}{10}$  of a grain of strychnine injected into the thigh. The result was prompt. He felt, after the first puncture, more power and warmth over all the limb. The pain diminished, and for the first time he was able to enjoy a night of uninterrupted rest. I noticed very particularly, in this case, that the pupils dilated soon after the puncture—this, and general diaphoresis, being among the first results, together with more or less gurgling of the bowels, which seems to be one of the earliest effects of the subcutaneous injection of strychnia, and which I have also most constantly observed, before any other phenomena, after hypodermic injection of morphine. The same dose of strychnine was injected three times more, at intervals of four days, and followed by the above effects. Sensibility then became quite natural. A tonic regimen, together with electricity, the hot and cold douche to the limb, and two more subcutaneous injections of  $\frac{1}{10}$  of a grain of strychnine, finally restored power to the paralyzed muscles. My friend, Prof. T. G. Thomas, of New York, saw this patient, and the results of the above treatment, from the beginning.

CASE III AND IV. The following is the report of the simultaneous occurrence of paralysis in two children, brother and sister; the boy one and a half years old, the girl three. Both were toward the end of the summer seized with symptoms of spinal meningitis, the disease in either case seeming to have been produced by their sitting on the wet grass. I saw these children, in consultation with Profs. Metcalf and Thomas, when they had passed the acute stage of the disease. The girl had completely lost the power of both legs and right arm. The boy was only, and in a less degree, paraplegic. Both were healthy looking children, and had had no other disease. The treatment employed by the above mentioned gentlemen benefitted them until the paralysis remained stationary, notwithstanding the internal use of strychnine, iodide of potassium, and tonics. The limbs, particularly those of the

girl, were cold and flaccid, and with the exception of the paralysis nothing abnormal could be noticed in either child. I suggested the employment of hypodermic injections of strychnine, which being approved, I injected five times,—once every three days,— $\frac{1}{6}$  of a grain over the lower part of the spine and in the legs of the boy, who, in the course of six weeks, was able to walk, with a very slight unsteadiness. From this date, tonics, strychnine by the mouth, warm baths and electricity, finished the cure. The progress of the girl was slower. During three months she had fourteen injections of  $\frac{1}{6}$  of a grain of strychnine. The legs gained strength, so that she could stand and walk, though quickly getting fatigued, and the arm and hand recovered power to grasp much more firmly. Electricity and a general treatment were kept up with her as with the brother, and she was benefitted considerably, though not cured, when the treatment had to be discontinued, on account of the absence of the parents from New York. I examined the urine of these children before injecting the strychnine. It was found highly charged with uric acid and triple phosphates. I could not possibly say that any marked modification was detected in the secretion after the subcutaneous employment of the strychnine. The temperature of the limbs was always raised after the injection. The frequency of the pulse was also augmented. The capillary circulation was rendered more active in the limbs, exhibiting large red patches, more intense in the vicinity of the punctured region. This condition would last three and even four days after the operation. The injections were attended with perspiration of the head and limbs, more profuse with the girl than with the boy. The pupils were always dilated, and gurgling of the bowels would persist some minutes after the puncture. Another very perceptible result was the fibrilar contractions, or twitching of the muscles in the limbs, lasting for a minute or two, and which I have found prolonged for more than an hour, in other similar cases.

CASE V. In February, 1866, I was consulted by Dr. G. A. Sabine, on the case of a boy four years old, affected with paraplegia, which had existed for two years. The paralysis had been preceded by fever. The muscles of both legs were very much wasted from the knee down to the feet, which were in a high degree affected with talipes equinus. The child could only move about on his knees. He had scarlatina a few months before, and was at this time free from renal trouble, but with bronchitis. This condition



was, indeed, rather discouraging to entertain any hopes of improvement. Both limbs were quite cold, and of a purplish color; the skin dry, and the circulation very much depressed. Under such circumstances, and learning that the most judicious course of general treatment and strychnine had failed to bring about any amelioration, I urged a trial of the hypodermic injection of strychnine, and local applications of electricity to the palsied muscles. And here may I remark, that no evidence of contractility was detected during the first applications of the induced current to the paralyzed muscles, with the exception of the gastrocnemii, which feebly answered to an intense current. A fact controverting the absolute statement laid down by Ducheune de Boulogne, that such an unresponsive state of the muscles is an evidence that they have undergone a fatty degeneration, and consequently passed beyond cure. The hypodermic injection was practiced in the anterior regions of the legs,  $\frac{1}{16}$  of a grain of strychnine being introduced in the tibialis anticus. It was impossible to ascertain any of the general effects produced, on account of the excitement and crying of the child. The circulation of the leg, however, became more active, the temperature of the skin was raised, and the limbs continued warmer that night and most of the following day. I persisted, during four months, with the subcutaneous injection every third day, and the daily application of electricity for half an hour, and the muscles were not slow to develop and recover strength, to such a degree that the child was able in the month of June, to stand and walk, with the assistance of an orthopedic apparatus. Having gone to the country for the summer, the hypodermic injections were interrupted. The child, however, kept on improving, to the time at which I last saw him, in September, 1867.

CASE VI. I attended, with Prof. L. A. Sayre, a boy ten years of age, with hemiplegia supervening upon fever and gastric derangement. The left limbs were involved, the leg being much atrophied, cold, and very sensitive, especially near the joint. The left pupil was larger than the right. Capillary circulation in the cheek and ear of the same side was very irregular, the skin of those parts presenting congested patches. In addition to these symptoms, from the beginning of the disease he had been troubled with epistaxis difficult to stop. The galvanic excitation of the lower limb, or the hypodermic injection of strychnine into it, was attended with a greater immediate dilatation of the left

pupil, increased congestion with higher temperature of the face, dizziness, and perspiration of the left hand. These phenomena were very perceptible at the beginning of the treatment, and subsided with the improved condition of the limbs.

The epistaxis was invariably preceded by redness of the left ear and cheek. More than thirty hypodermic injections were practiced in this case, and although the muscles gained in size and strength, and the limbs grew firmer, the deformities of the foot prevented the child from walking without support. When I last heard of him, this latter difficulty had been in a great measure overcome by orthopedic treatment, instituted by Dr. Sayre.

CASE VII. I might also allude here to the case of a girl twelve years old, a patient of Prof. Wm. H. Van Buren. She had been paraplegic from infancy, and to prevent the deformities consequent thereupon, tenotomy had been performed in nearly every muscle of the lower extremities previous to her coming under Dr. Van Buren's care. At the time of our consultation, she was mainly following the movement cure treatment, associated with tonics and hygienic means proper to promote nutrition. She could not walk without support, a great deal of the impossibility depending upon spinal curvature and deformity of the pelvis and hip joints. The muscles of the leg were atrophied and the circulation of the extremities very sluggish. For several months I made semi-weekly injections of from  $\frac{1}{16}$  to  $\frac{1}{8}$ th of a grain of strychnine and also applied the induced current to the muscles. These rapidly increased in growth, the circulation became regular, and as the limbs grew firmer, the girl could bear her weight and walk more easily with a cane, but always with the peculiar gait due to the distortion of the pelvis. In this patient, increased activity of the circulation with greater warmth and power in the limbs, was very perceptible for some hours after each puncture;  $\frac{1}{8}$ th of a grain of strychnia was apt to cause stiffness of the limbs, if the injection was made over the lower region of the spine—and also giddiness with a feeling of great warmth all over the body.

Before relating two instances in which the hypodermic injection of strychnine originated phenomena of pseudo-intoxication, I may be allowed to mention the curious case of a Mexican, who, after being kept all one night in a cold damp prison, had, the next day, facial paralysis on the left side. The attack commenced with violent prolonged chills and pain, with numbness extending throughout the arm to the fingers. He continued to have regularly, a par-

oxysm of intermittent fever every morning with an exacerbation of the paralytic symptoms. He had never had ague. Quinine broke the periodical fever, but the paralysis persisting, I made these hypodermic injections of  $\frac{3}{16}$ th and  $\frac{1}{80}$ th of a grain of strychnine and the paralytic symptoms entirely disappeared. The dilatation of the pupils and diaphoresis of the head and neck were very marked in this instance, and from the first injection, the patient lost the feeling of numbness and heavy weight which he experienced in the paralyzed side of the face.

I pass to the two most interesting cases. A boy aged ten, from Elizabethtown, New Jersey, who had enjoyed previous good health, suddenly became paralyzed. He was in the beginning feverish and grew weaker and weaker, until the limbs finally lost all power. Six weeks after the attack he was altogether powerless, lying in bed and could only move slightly the fingers. He did not exhibit signs of impoverished nutrition, nor want of development, although the limbs seemed rather small and were cold. He complained of chilliness and numbness in the extremities. The pupils were largely dilated. There was a constant itching of the nose. His bowels were either constipated or too loose, without any obvious reason for it, accompanied by itching of the rectum. The appetite was good, lungs and heart sound, pulse 98 and feeble. No headache, or any other symptom worth noticing. Suspecting the disease to be the effect of helminthiasis, I directed the boy to take four santonine dragées twice a day, and two grains of calomel on the third day at bedtime. The next morning he passed an ascaris of a deep pinkish color. He complained during the day of headache with a most peculiar and disagreeable sensation in the stomach. He could not describe the feeling which upset and made him very nervous. The anti-helminthic treatment was continued for a few days to be sure that all worms were expelled. The condition of the boy in the meantime improved. He was capable of raising himself in bed, had more power over the hand, and regained the use of his arms—the legs, however, remaining as palsied as before. I prescribed a tonic treatment and strychnine dragées of  $\frac{1}{16}$ th of a grain to be gradually increased to three a day, nutritious diet with coffee, exercise, an alkaline tepid bath every day, etc. The improvement kept up satisfactorily, but as the mother wished to remove the boy before Christmas to Olean, N. Y., where she lived, I determined to make a hypodermic injection of strychnine in each of the limbs. This was one of the very first instances in which I resorted to such means, and I confess that I was very particular as to the

strength of the solution, which I prepared myself, diluting  $\frac{1}{16}$ th of a grain of strychnine in two drops of distilled water. I also employed one of Tieman's syringes, so constructed that by turning a small button connected with indentations of the piston this could be pushed in, and every indentation that was advanced, exactly displaced one drop of the solution. The patient was at the time using daily three dragées containing each  $\frac{1}{16}$ th of a grain of strychnine. The injection was practised in the afternoon, and  $\frac{1}{16}$ th of a grain deeply introduced into each thigh. The boy was very fretful at the idea of the operation, which was, however, performed without giving him any pain. I injected first the right thigh, and about two minutes after, the left. In two minutes more the boy commenced to sigh and to have a meaningless smile, with stiffness in the jaws soon passing into real trismus. The pupils were largely dilated, the face congested, and tetanic spasms of the respiratory and cervical muscles followed. Every attempt to articulate a word awoke a spasm. He could neither speak nor be touched without being seized with a jerk, and the whole surface of the body was in perspiration. Notwithstanding the trismus and the impossibility of articulating, the boy could swallow some water after the spasms had begun. The mother feeling very anxious at this condition, I made the boy inhale some ether which relaxed the spasm of the muscles before it induced complete anesthesia. A mixture containing half an ounce of spirits of turpentine was thrown into the rectum, the ether discontinued, and in about three quarters of an hour, the unpleasant effects completely disappeared. He then stated that he remained conscious all the time, and that the questioning of his mother about his state made him feel badly, bringing on the attacks at every attempt to answer her. At the same time he was much gratified to feel more power in his legs, that he could stand and bear his weight on them, and that he could move them for the first time since he was taken sick. The subcutaneous injection of strychnine was not repeated, but the boy continued with the above treatment and in two days started for home very much improved. I recently learned that he completely recovered.

The other instance in which I noticed similar effects, was that of a little girl six years old, whom I attended with Dr. G. A. Sabine. She had paralysis of the left leg, after fever and gastric disturbances occurring seven months before I saw her. The tibialis anticus, the peroneal and the muscles of the thigh were very much atrophied, the girl being unable to flex the left foot. She had been

submitted to tonics and strychnia with very slow advancement, and upon consultation, we judged best to use the hypodermic injection in the limb in addition to local hot baths and electricity. In a period of more than a year, I made thirty-six subcutaneous injections of  $\frac{3}{16}$ th of a grain of strychnine repeated once a week. The effects from the commencement, were more activity of the circulation and greater warmth, firmness and growth of the paralyzed limbs. The increased activity of the peripheral circulation was most manifest on the corresponding side of the face and neck, with dilatation of the pupils, especially when the girl was languid or exhausted. On one occasion, the child being very pale and tired, I injected  $\frac{3}{16}$ th of a grain three days after she had had the same dose. The puncture bled more than at other times, and as usual, I remained watching the effects of the injection. In about eight minutes she complained of giddiness and was soon seized with trismus and opisthotonos. The tetanic spasms were not violent, and were accompanied by general perspiration, congestion of the face and enlargement of the pupils. Inhalation of ether readily dispelled these symptoms. The girl, however, remained, when the ether was discontinued, with sudden starts preceded by dilatation of the pupils, which ceased when an injection of turpentine was passed into the rectum. During the spasms a good deal of flatulence escaped from the bowels, which did not act in five hours after the injection. After a tepid bath she had a long sleep, and awoke very thirsty with a peculiar sensation in the tongue as though she had a thread in it, but otherwise in her natural condition, and with pulse 79.

I am sure that the quantity injected in this case, and afterward repeated without such unpleasant consequences, was  $\frac{3}{16}$ th of a grain. The only way to account for such occurrence would be the rapid passage of the injection into a vein and the languid condition of the child. We cannot think of accumulated effects since strychnine was not used by the mouth, and the previous injection was made three days before. To finish with the case, I will remark that I saw her last spring, when she was able to walk without dragging the foot, and showed only a slight difference between the power of flexing the two feet.

I could adduce other instances in which I have employed hypodermic injections of strychnine with beneficial results, should the above examples be considered insufficient to demonstrate the importance as well as the security of such means of treat-

ing paralysis. My purpose, however, in here alluding to the subject, has not been to extol the virtues of a new remedy, but to point out that the results observed by the physicians already quoted and by myself, strongly indicate the cardinal part of the sympathetic in the pathogeny especially of infantile paralysis. This is a question that I have discussed at length in my essay "On the pathological anatomy of reflex paralysis, and its relation to the sympathetic system," and I could hardly treat of it within these narrow limits. The effects of strychnia are widely different when administered hypodermically or by the mouth. By the latter method, the quantity may be repeated and increased, unsuccessfully, as manifested in the cases of Hunter and in those here related, and yet a smaller dose of the substance, exhibited hypodermically, be capable of regenerating at once the lost muscular power. I must acknowledge that I have not tried the injections of strychnine in cases like that seemingly of myelitis, reported and successfully treated by Mr. Hunter.

Returning to the consideration of the difference of action according to the method of administration, it is quite plain to me, and undoubtedly to the gentlemen of the Convention, that the reason shows itself in the very nature of the phenomena observed, for they are those peculiar to the action of the sympathetic system—the source of all irritability and center of movement, controlling the functions of nutrition and reparation altogether independently of the spinal cord. These are far from being theories, they are legitimate deductions from what I have been able to detect upon repeated investigations of the nervous system in infantile paralysis. I have made reference in my paper on reflex paralysis, to the sclerosis and amyloid degeneration of the spinal cord existing in infantile palsy. There are again instances in which no such degeneration appears to have been discovered by competent observers, and at this moment the celebrated Ducheune de Boulogne in his researches "On *pseudo-hypertrophic* or *myo-sclerotic* paralysis," published in the Arch. Gen. de Med., January to May, 1868, states that no alteration of the nervous centers has thus far been found in the only case in which the investigation was made by the distinguished Cohnheim, former assistant of Virchow. This new curious form of infantile paralysis created by Ducheune, is characterized by an increased volume of the muscle consequent upon the interstitial multiplication of connective tissue between the primitive fibers. The disease as remarked by Ducheune is not common, and whether

it is entitled to the separate nosological place that he gives it, I am not prepared to dispute. Nevertheless, the sclerosis that gives such a hypertrophied appearance to the muscles I have myself discovered in ordinary cases of infantile paralysis, extending to a few muscles and with the very structural changes described by Duchenne after examinations made by Ordoñez. Furthermore, this sclerosis I have again found, when the spinal cord was apparently free from damage, confined to the peripheral nerves, the ganglia, the muscles, and even the capillary vessels of the paralyzed limbs. I examined the whole spinal cord, the ganglia of the cervical and lumbar plexuses, and some of the muscles of the limbs of a young man who died under my care at the Charity Hospital, New York. He was hemiplegic since infancy, could hardly speak, and had paralytic talipes equinus and contraction, with deformity of the hand. I studied most carefully several portions of the muscles of the leg and arm. In many of them, I discovered a fatty substitution, but in others this was replaced by a great abundance of connective tissue, the primitive fibers being in many places quite transparent, and having several nuclei. The size of these muscles was larger than natural. What more attracted my attention, was, that from the periphery to the ganglia, the nerve fibers were nearly absent, and replaced by this fine fibrillar tissue also abundant in the ganglia, where the few cells spared were very dark, granular, and easily disintegrated. In this extensive degeneration, the spinal cord was not throughout equally involved. It exhibited in many places a transparent gelatinous appearance, more manifest in the grey substance, and noticeable only under high magnifying power. There was very little increase of connective tissue in the posterior columns, but the anterior were completely destitute of nerve fibers, and the neuroglia was infiltrated with brilliant amyloid corpuscles. Some of these were also discovered in the lumbar ganglia. Here was, therefore, an example of degeneration involving the spinal and sympathetic systems. I may state in addition, that in two cases of epilepsy with local paralysis dating from infancy, I have not been able to detect any definite change of the spinal cord: whereas the sympathetic ganglia, nerves, capillary vessels and muscles of the paralyzed limb showed in different degrees an alteration similar to that already described. Therefore, I am led to believe that to the sympathetic, and not to the spinal system ought we to ascribe the principal origin of infantile paralysis, as well as that of some of the peripheral and reflex paralyses. The effects of the hypo-

dermic injections of strychnia add confirmative evidence to this view, the only one accounting for the peculiar localization of the paralysis as well as its obstinacy and long duration, without involving the spinal cord. Finally, one remark as to the manner of performing the injections. Generally, I insert the trocar of the syringe deeply into the paralyzed muscle and draw part of it out to avoid throwing the solution directly into a blood vessel. The injection should be practiced very slowly; by having a solution with  $\frac{1}{100}$ th or a smaller fraction of a grain to the drop, the strychnine may be so diluted as to allow carrying its action at the same time into more than one of the palsied muscles. The general effects are more rapid and decided when the solution penetrates no deeper than the cellular tissue, or when the puncture is made along the spine. It is obvious that the quantity of strychnine in this way required for the treatment is a great deal smaller than in any other. Mr. Hunter mentions that in two out of about twenty-five patients in whom he injected strychnia, a carbuncular state of the nose, or rather a collection of small boils arose. One was the patient with the gunshot wound in the spine, the other, a case of muscular prostration consequent upon, according to Brown Sequard, congestion of the spinal marrow. I have the record of forty-eight cases in which I have resorted to the subcutaneous injection of strychnia, and do not find such results noticed in any of them.



ARTICLE VI.  
OBSERVATIONS,  
ANTE-MORTEM AND POST-MORTEM,  
UPON THE CASE OF THE LATE PRESIDENT DAY.

BY PROFESSOR S. G. HUBBARD, M. D., NEW HAVEN.

Read before the Convention May 27th, 1868.

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THE value and interest attaching to the statement of a case of disease, often depends as much upon what is known of the personal history of the individual during his life, as upon the pathological appearances noticed after death; and where the semeiological and pathological facts are connected in the relation of sequence, the lessons which they teach are doubly valuable and instructive.

With regard to the eminent man whose case forms the subject of this paper, some other facts, not strictly pertinent, or perhaps necessary, may not be without interest.

Jeremiah Day was born in Washington, Conn., August 2d, 1773; and during the war of Independence was old enough to appreciate the nature of the issues involved in that struggle, and well remembered having seen some of the principal actors in it.

His infancy and boyhood were marked by indications of feeble vitality; and the prospect of his arriving at the maturity of manhood, never very flattering, sensibly diminished as he approached that period. He entered the Freshman class in Yale College in 1789, but was soon obliged to leave college on account of a "pulmonary difficulty," which was, doubtless, the incipient stage of the organic disease of the lungs which subsequently developed itself. These symptoms were so far alleviated that for two years he taught a school in Kent and Winchester, when he found his health so much improved that he returned to College and was graduated in the Class of 1795.

The succeeding six years, a period of great feebleness, were spent partly in teaching at Greenfield for a year, as tutor in William's College for two years, and as tutor in Yale College for three

years, during which last period he studied Theology, and preached occasionally in vacant churches in the vicinity, until 1801, when he was elected Professor of Mathematics and Natural Philosophy in the College.

He was prevented, however, from entering upon his professorial duties, by the occurrence of an alarming pulmonary hæmorrhage, which happened after a Sabbath service at West Haven where he had preached for Rev. Dr. Williston. Other hæmorrhages followed, by which he was greatly prostrated, losing large quantities of blood. According to the prevailing practice of that time, he was freely bled from the arm—"the doctors taking," as he remarked to me, "nearly all of the little remaining blood in his body."

In this condition of extreme exhaustion, at the age of twenty eight, he abandoned temporarily the purpose of entering upon the duties of his professorship, and in September of that year, he made a voyage to Bermuda to try the effect upon his health of a warm climate. While there, he was treated with Tincture Digitalis to the extent of producing its cumulative effects, which were so profoundly sedative that for a time his life was despaired of. Indeed so reduced and attenuated was he on leaving home, that none of his friends expected to see him again alive, and the published letters of Professor Kingsley and others, of that period, lament him as already lost to science and the world. He returned, however, in the following April, but without having experienced any material benefit; so that he now gave up entirely all idea of fulfilling his College appointment; and bidding farewell to his associates, he retired to his home among the hills of Washington, to die.

The hæmorrhages continued, and were followed by venesections, until a Dr. Sheldon of Litchfield, who enjoyed a wide reputation for "curing consumption," chanced to see him, and casually remarked that he needed Iron"—and "he believed he could help him."

Although the patient was evidently in a hopeless decline, he was placed under the care of Dr. Sheldon, who would seem to have been an acute observer, and in his knowledge of pathology and therapeutics, far in advance of his time. Under the use of preparations of iron with bark, and nutritious food, Mr. Day soon began to exhibit signs of returning strength and health; and in 1803, although he seemed to his friends literally like one raised from the dead, he was so far restored to health, as to be inaugurated as professor.

From this time all symptoms of pulmonary disease disappeared, and did not return.

From 1803, Mr. Day continued uninterruptedly to discharge his professorial duties, until he was elected to succeed Dr. Dwight as President of Yale College in 1817; and he performed the arduous duties of the office, without serious disturbance of his health, until 1836, when at the age of sixty-three, he first became aware that he had some affection of the heart, as indicated by its irregular and intermitting action.

On several occasions, at the College chapel and at his own house, he was attacked by alarming syncope, which continued for a considerable time, and probably led him instinctively to adopt the slow, cautious and measured step, by which the present generation have mostly known him in our streets.

It was the opinion of Dr. N. B. Ives, who was his physician for many years, that it was a case of cardiac hypertrophy; and this opinion was corroborated by the subsequent diagnosis of Dr. Pennock of Philadelphia—at that time the highest authority in this country, in diseases of this class. He will be remembered by some present, as the editor of the first American edition of Dr. Hope's classical work on diseases of the heart.

The attacks of syncope were treated on general principles; but the frequent attacks of palpitation, and irregular tumultuous action of the heart, were treated by Dr. Pennock's advice, with cupping between the scapulæ, and always with relief. He was also blistered along the spine, and took half a grain of digitalis and a quarter of a grain of calomel three times a day with vegetable tonics.

Dr. Ives has told me that as the patient advanced in years, he drew less and less blood by cupping, until finally, only dry cups were applied—and it was noticeable that they were followed by the same degree of relief as when blood was drawn, suggesting the idea that possibly they might of themselves have been sufficient to relieve the congestion from deranged nervous action which was believed to exist.

The increasing frequency of these attacks, however, admonished him so constantly of the necessity of leading a quiet and more retired life, that in 1846, he resigned the Presidential office, which he had held for twenty-nine years; and for the last twenty years of his life, he devoted himself to letters and the society of his friends—daily expecting to die suddenly, at any moment—yet he lived

far beyond the allotted years of man, with an amount of organic disease seldom exceeded—and finally died of *old age*.

My professional acquaintance with President Day, dates only from about 1860. He frequently consulted me on account of diarrhœa, by which he was much debilitated; the attacks being attended with fever, and sometimes with great cardiac disturbance. The promptness with which he rallied from these attacks, and the surprising sensitiveness of his system to the action of tonics and stimulants, resembled the susceptibility to the impressions of medicinal agents which characterizes the period of infancy. He has often told me that he never experienced a headache.

He was never known to complain of the vesical irritation, which is so very common in old men; but for a number of years it was believed that he suffered severely from this cause—frequently showing by suppressed respiration, and involuntary and almost inaudible expressions of pain, that he endured daily, extreme suffering from vesical tenesmus.

In April, 1867, he fell upon the pavement, and being unable to rise, was carried to his bed. No symptoms of fracture or dislocation could be discovered, yet he never afterwards walked; but after a time, was daily placed in a wheeled chair, and spent most of the day in his study, where he received his friends, and took part in the meetings of his club as usual.

For a few only, of his last days was he entirely confined to his bed; then his strength rapidly failed, and a drowsiness from which he was easily aroused, gradually deepened into coma, and without pain, he quietly ceased to breathe on the 27th of August, having just entered upon his ninety-fifth year.

I have mentioned more particularly the circumstances attending his last illness, if such it could be called, for they mark so accurately the decline of the vital power, uninfluenced by any recognizable organic disease. It was simply the gradual decay of old age.

Twenty-four hours after death, an autopsy was made by Dr. M. C. White, in presence of Dr. N. B. Ives and myself.

Of course great interest was felt respecting the appearances which the thoracic organs might present, as from the history of the case, considerable changes in the structure of the heart and lungs were to be expected. Rigor mortis very decided—body much emaciated.

On opening the thorax, only a moderate quantity, perhaps a pint, of serum was found in both cavities—the lungs were every where quite free from tubercular deposit, and in all respects healthy. In the apex of each lung, however, was found a dense, corrugated circular cicatrix, an inch and a half or more in diameter—also a *third* circular cicatrix, on the left side of the left lung, a few inches below the apex, each involving such a depth of tissue, as to indicate that the vomicae of which they were the remains, had been large and of long duration. Both lungs were slightly adherent at the apex.

Here then, was all that remained to mark the beginning, progress and cure of a case of tubercular consumption, occupying *twelve years* in its period of activity, and with its incipient stage, dating back more than *three quarters of a century*. A legible record, surpassing in interest and importance to the human race, those of the slabs of Nineveh, or the Runic inscriptions.

The heart was of normal size, or a little less, and filled with very dark coagulated blood; its walls were thin, and its valves free from disease, the aortic valves holding water perfectly—the right auricle was dilated to the size of a duck's egg, the coronary arteries generally ossified, and the entire organ presenting the usual appearances attending Angina Pectoris, excepting the absence of hypertrophy.

The spleen was very much atrophied, and upon one side, forming nearly the entire bulk of what remained of it, was a steatomatous tumor, two inches and a half in diameter, hard and firm, looking like a mass of spermaceti.

The pancreas was healthy. The liver was small, and presented the appearance called "Nutmeg" liver, approaching in portions, the "hob-nail" variety.

The supra-renal capsules were almost obliterated. The kidneys were small, and each contained numerous urinary cysts, some as large as walnuts, while others were scarcely visible to the naked eye.

The bladder was also small, its walls thickened, and containing about two ounces of urine, which was not examined. Upon the left wall of the bladder, however, was a sac, open at the top, containing, perhaps, the most remarkable collection of urinary calculi ever seen in one individual.

It consisted of *nineteen loose stones* of the uric acid variety, weighing ten drachms and two scruples—and of such peculiar

shape as to suggest the idea that they had originally formed several larger calculi, which had undergone spontaneous separation in the bladder.

The integral sections present such a similarity of outline, and such singular uniformity in their faces, several of which have an angle of 120 degrees, that the conclusion is almost irresistible, that they were formed and separated in obedience to some mathematical law. An idea that I think will not fail to suggest itself, on examining the specimens themselves, or the accompanying engravings.

It is noticeable that in the two calculi that I have readily reconstructed, their separation was into fragments of *seven* around a central pillar. The commencement of this process of mathematical division is shown in Fig. A, and its completion is seen in Fig. B. Midway of the central pillar of this calculus, B, there is a horizontal disc-like nucleus, the rounded projecting edge of which was accurately fitted into corresponding depressions in the internal facets of the sections forming the original stone.

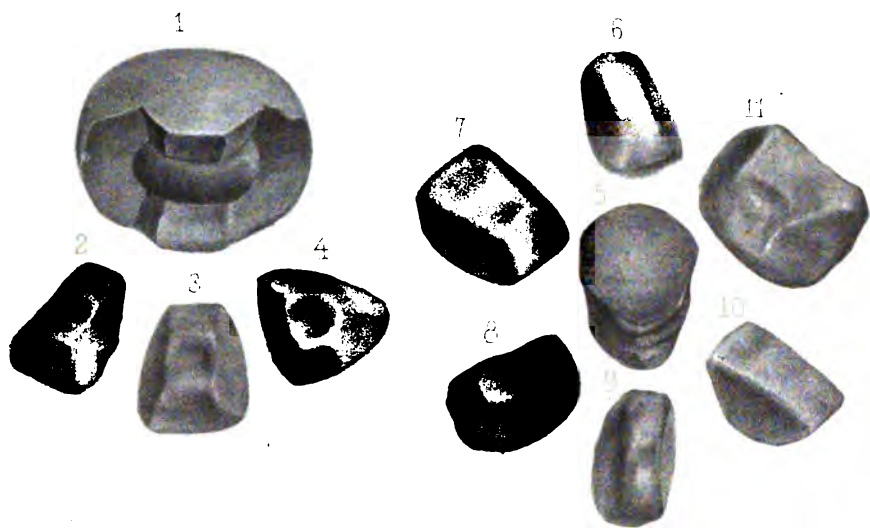
The outline of what was once, doubtless, a similar horizontal nucleus, is distinctly shown midway in the central pillar of the other calculus, Fig. 5; but now worn down to a level with the general surface.

After reproducing these two calculi, A and B, from the accurately fitting sections, there remained eight pieces having the same general outline as the others, with the same central depression upon their internal angles, showing that originally, they were the component parts of a third calculus, having the same arrangement of seven sections around a central pillar; but they are too much worn by long attrition, to be re-assembled.

Figures 1, 2, 3 and 4, are, segments of the calculus, re-united at B.

Figures 5, 6, 7, 8, 9, 10, 11, are segments of the calculus which I have re-united at A.

The remaining figures, are those of the stones that could not be united. One fragment, not here shown, was used by Prof. G. F. Barker for analysis.



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The spontaneous separation of urinary calculi, within the bladder, is a phenomenon which has not been frequently recorded, although instances of their disintegration and passage from the bladder in fragments more or less comminuted in the form of sand, or of angular pieces of considerable size, have been occasionally observed from a very early period, and probably led to the ancient practice of attempting their chemical solution by medicating the urine through substances introduced by the stomach, or injected directly into the bladder—and we are doubtless indebted to the observation of spontaneous separation, or disintegration of urinary calculi, for the substitution of the now common operation of lithotripsy instead of lithotomy.

In "*Jenaische Zeitschrift für Medicin und Naturwissenschaft*," Leipzig, July, 1866, is an extended article on this subject, by Dr. Julius Geinitz, who in mentioning the early observations that have been recorded, says that he has collected from the literature of the subject, fifty-two cases, giving authorities and dates ranging from 1685 to 1864. A case was also reported to the British Medical Association in 1867—and from the great rarity of such specimens in the largest collections of calculi of which we have any knowledge, it must be inferred that their occurrence is very infrequent.

By what mathematical or chemical law, were these calculi spontaneously separated in a manner so peculiar?

Had the laws of crystallization anything to do with their formation or separation?

Were striæ of animal matter interspersed throughout their structure during the formative process, and which by some change in the chemical reaction of the urine were dissolved out, allowing the mass to fall asunder?

Were they broken by external force applied to them through concussion, as in walking or leaping? are questions which naturally suggest themselves.

Spontaneous separation has been attributed to each of these causes; it has also been referred by Geinitz to the operation of chemical action of another kind. He says, when any single layer of the stone is converted into a compound that occupies a greater volume than it did previously, the more external layers may easily be split off. Thus in case of the uric acid calculus, he supposes that the urine having become more strongly alkaline, percolates through the outer layers, and acting upon the uric acid nucleus,

converts it into urate of ammonia, the volume of which being much greater than that of uric acid, a force is generated, which, acting from within outwards, disrupts the calculus. So many forcible objections to this ingenious theory of spontaneous separation present themselves, that it must be classed with the others alluded to which are all unsatisfactory, and the problem remains unsolved.

In reflecting upon the sacculated relations of this calculous quarry, and the high lateral position of the sac, it seems probable that their presence could not have been discovered by exploration with the metallic sound, although many of the symptoms of urinary calculus were present.

Ferguson, speaking of lithrotrity, says, "should the bladder be sacculated, a condition which can scarcely be ascertained on the living subject, the difficulties would be greatly increased." He says further, that "a large pouch sufficient to conceal a calculus of large size, is exceedingly rare."

It is hardly too much to say, then, that the presence of these calculi could not have been detected during life.

A writer in Holmes' recent work on Surgery, speaking of the same source of difficulty and error in the diagnosis of urinary calculi, says, "it is quite uncommon." He mentions the case of a man in whom Morand had discovered a calculus by the sound, but which could not afterwards be recognized by other surgeons. At his death, years afterwards, the patient willed his body to Morand, as he said, "to teach him a lesson." On post-mortem examination, however, there were found "three calculi, as large as apricots, sacculated on the side of the bladder."

The reflected light which this remarkable case throws upon the status of practical medicine, as it existed in the last century, invests it with peculiar interest. It was a connecting link between the old dynasty and the new—a surviving witness of a wonderful revolution in the opinions of men, second only in magnitude and importance to that which ushered in the Christian era.

Holding on in blind faith, to the bloody vestments of the past with one hand, it reached eagerly forward to welcome the dawn of Rational Therapeutics with the other; and was doubtless regarded at the time, as strongly sustaining the truth of the new doctrine which was then just beginning to make its way among the profession, and which soon after divided it into two hostile parties. The one holding the long undisputed dogma, that all disease was *sthenic* in its nature, and was only to be cured by *bloodletting and calomel*;

while the other contended as stoutly, that disease was *aesthetic* in essence and only to be cured by *stimulants* and *tonics*.

Few of us know anything except from history or tradition, of the fierce war that for a whole generation raged among the doctors. It was literally "war to the knife," and was marked by gross personalities and bitterness. But the phlebotomists were driven from the field; and where at that time, a *thousand* patients were bled, *not one* is bled to day, and yet the sick recover as promptly, and the value of human life has steadily increased.

As a general rule, perfect unity of opinion is incompatible with permanent scientific progress. Mindful of this fact, the profession, true to its own traditional character for disagreement, while it has been reluctantly compelled to yield its unanimous assent to the opinions and practice of the conservative school, is again widely divided in opinion as to the causes that have produced this great revolution in practice.

One party, of which Dr. Stokes, of Dublin, may be called the representative, arguing that venesection and cathartics are not as well borne as formerly, because of the great change that has been silently progressing in the *diathesis of disease*, consequent upon changes in the *habits and constitutions of the population*, incident to increased wealth and greater diversity of occupations, as well as changes in the character of the seasons and the topography of the country, from the destruction of forests and construction of public works, and other causes. The other party, represented by Professor Bennett of Edinburg, affirm that the disuse of blood-letting is wholly due to the prevalence of the new and improved views of therapeutics, as promulgated by himself and others, and based upon the more intelligent study of pathological anatomy. Undoubtedly the opinions of each school are in the main correct.

Until within a few years, the possibility of a *natural cure* of tubercular consumption, after it had reached the stage of suppuration and the formation of vomicae, was denied. The frequent discovery, however, after death, of cicatrices in the lungs, and of dry and empty cavities, communicating with the bronchi of living persons, who, during former years, had presented all the physical signs of consumption, leaves no room to doubt that such favorable terminations, are much more frequent than is even yet supposed.

ARTICLE VII.  
RELATION OF  
ALBUMINURIA TO PUERPERAL CONVULSIONS.

BY P. M. HASTINGS, M. D., OF HARTFORD.

Read before the Hartford County Meeting, April 30, 1863.

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THE relation as cause and effect, which recent investigations have proved to exist between Bright's disease of the kidney and puerperal convulsions, forms a subject of very great interest. In the present state of our knowledge, it would perhaps be premature to assert, as some eminent writers have done, that all cases of true eclampsia are due to diseased kidneys, since equally careful observers have failed of finding evidences of any pathological change in these organs, in fatal cases of puerperal convulsions. Yet the accumulation of instances where fatal eclampsia has attended the various forms of Bright's disease together with a large number of cases in which recovery took place, and which presented conclusive evidence of similar pathological changes, warrant the claim, that a large proportion of puerperal convulsions arise from diseased kidneys.

The term *Uraemia*, denoting that condition of the blood, arising from the retention of urea, one of the principal constituents of the urine, comprises a class of symptoms long recognized as produced by the retention or suppression of the urinary secretion, is now applied to Bright's disease. Repeated experiments with varying results, still leave the question, whether urea or carbonate of ammonia into which it is readily converted, really acts as poison when introduced into the circulation, undecided. So that we must understand by the term *uraemia*, that condition of the system arising

from the toxic influence of any or all the constituents of the urine retained in the blood.

The term albuminuria often used as nearly or quite synonymous with uraemia, seems on many accounts the most appropriate. The presence of albumen in the urine is one of the most constant symptoms of Bright's disease, especially if accompanied by casts of the uriniferous tubes or fibrinous clots, furnishes the most reliable and sometimes the only evidence we can have in forming a diagnosis. It is a test easily applied and in a large proportion of cases, is a symptom of greatest value. The presence of albumen in the urine may not necessarily be a symptom of grave disease, as its existence may depend upon causes of a temporary nature; and on the other hand, cases of Bright's disease, are on record where careful observation has failed to detect uriniferous casts or albumen in the urine. Still albuminuria is to be regarded as the prominent symptom of this disease, even when associated with a considerable amount of urea.

It will occur to the mind of every medical man, that the relation of albuminuria to the puerperal condition is difficult to define, and in the present state of our knowledge, exact conclusions are far from being received without question.

In private practice, a large majority of cases of eclampsia do not fall under the notice of the physician until too late to make careful inquiry as to the cause and when prompt and efficient treatment must absorb his whole attention. And to this circumstance, we may add the statement, that Bright's disease has been found in fatal eclampsia, where its existence had not been suspected, and where even the ordinary symptoms were known to be absent. It seems now to be well established, that albumen is sometimes intermittent in its appearance. Repeated observations may be necessary for its detection. Sometimes very close discriminating study will be required to separate those symptoms due to diseased kidney, from those arising from the development of the uterus.

Our knowledge upon these points must depend largely upon the observations made and recorded in lying-in-hospitals, where the only opportunity of studying considerable numbers of cases presents itself. I believe, however, that very many of the troublesome, and sometimes fatal concomitants of the puerperal state will be found to depend upon disease of the kidneys.

The causes of Bright's disease seem to be little understood. Since ligating the renal veins in animals has produced albuminuria,

it has been inferred that pressure upon these vessels by the gravid uterus preventing the return of the blood, was one of the principal causes of congestal kidney; but as albuminuria may and does occur at any period of the puerperal state, in the earlier months of pregnancy, as well as after delivery when such pressure cannot be supposed to exist, producing abortion and convulsions—still farther, we find large uterine and ovarian tumors, where pressure upon the kidneys may be presumed to exceed that of the gravid uterus at full term, often free from this complication, we may well doubt the efficiency of this course. The peculiar condition of the blood in pregnancy, the increase of water and fibrin, with large numbers of colorless corpuscles, the decrease of albumen and red globules, is supposed in some manner to favor congestion of the kidneys. Probably, in many cases, both of these conditions tend to induce congestion and the subsequent changes which have been included under the term Bright's disease. It seems plausible to suppose that the blood, poisoned by arrest of the urinary secretion, circulating in the nervous system, induces an irritable condition of the nerves, which needs but the exciting influence of labor, to produce convulsions or other known effects of uraemic intoxication.

Eclampsia is much more frequently observed in primiparæ and is seldom witnessed in subsequent pregnancies. In those rare instances where it has been repeated, there are strong reasons for suspecting chronic disease of the kidneys.

Undoubtedly, very different degrees of susceptibility to this species of toxæmia exist. A comparatively moderate amount in some instances inducing fatal convulsions, while in others, where the evidence of an advanced stage of Bright's disease is unquestionable, we may fail to notice any evidence of uraemic intoxication. It is stated as the result of extended observation, that eclampsia rarely happens, where extensive effusions in the cellular substance of the extremities is noticed. Illustrative of this extreme insusceptibility and its opposite, I will briefly state two cases, notes of which were preserved, which came under my care in 1864.

June 12th. I was called on account of dropsical trouble to see Mrs. A, a small, feeble looking woman aged about 45 years, multipara, three days before the commencement of labor. Found her lying upon the abdomen with the legs extended to their utmost limits, and claiming that in this position only, can she secure any rest. The external labiæ were enormously distended, firm and dense, not in appearance unlike a large double hydrocele. Abdomen very large, and

presenting distinct evidence of fluctuation, the upper and lower extremities very œdematous, face pale puffy. Expects to be confined in a week or two. Urine said to be very scanty. Directed compound Jalap powder in drachm doses to be repeated every two hours until a decided effect was produced.

13th, Cathartic operated freely, urine still reported very scanty and none could be procured for examination. Directed a diuretic mixture of wine of Colchicum, Digitalis and Hyosciamus.

14th. About one pint of urine had been collected in twenty-four hours. Bowels much relaxed. Abdomen and labiæ much less dense but not very much reduced in size. Examination of urine, sp. gr. 1020. Albumen very copious, fine cells and uriniferous waxy casts very abundant.

15th. Labor commenced at 3 o'clock A. M., on rupture of the membranes an immense discharge of liquor amnii occurred, followed by the delivery of a healthy child and another flood of water.

16th. Patient very comfortable lying upon her back, with legs widely distended, says that she has passed urine freely.

19th. Found patient sitting up in an adjoining room, reports herself as feeling quite well. Urine contains albumen and pus in small quantities. Directed the Jalap powder to be repeated every second or third day.

Saw this patient at the end of the third week, and found her engaged with her ordinary household duties. The dropsical effusion had entirely disappeared, and to all appearance she was in ordinary health.

It would be a fair inference that this woman had large white kidneys, that the extensive effusion and free purgation, joined perhaps with a more than ordinary insusceptibility, preserved her from the more formidable symptoms of uræmic intoxication.

In contrast with this case, I will adduce another instance where the amount of retained urea must have been very slight.

Mrs. N. a primipara was taken within labor on the morning of November 17th, 1864, several hours before my arrival. Found the os uteri fully dilated, head presenting, pains moderate but efficient.

On inquiry, learned that her pregnancy had not been attended with any unusual symptoms, except that for a few days previous she had suffered from severe pain in the head, differing in character from any before experienced. I thought her face appeared puffy, but her friends had noticed no unusual fullness. Urine said to be

free and natural as to quantity. After the labor had gone on favorably for five or six hours, and when the head was pressing upon a somewhat rigid perinæum, she was seized with a severe epileptiform convulsion. Delivery was speedily effected by instrumental aid—the child was large and healthy.

The mother remained comatose several hours, when aroused complained of headache—ordered five grains of Dover's powder to be repeated in two hours. In the evening found her still complaining of headache, no return of convulsions, pulse small and quick.

18th. Passed a restless night, still complains of severe pain in the head. Has passed urine twice during the night. I secured a small amount for examination. This was decidedly albuminous, accompanied with a considerable amount of epithelium, no casts observed. Directed the compound Jalap powder, to be repeated in two hours. In the evening found patient much relieved by operation of cathartic. Very little pain of head—repeat Dover's powders.

19th. Slept considerable, pain in the head has returned, but less severely, pulse small and quick, repeat cathartic.

20th. Much relieved by the purgative, slept a greater part of the night. No untoward symptoms presented themselves during convalescence. The urine contained no trace of albumen after a few days.

This, I presume, was an instance of simply congested kidney, and owing to the peculiar susceptibility of the patient, was followed by a severe convulsion.

During the same year, I saw in consultation Mrs. G., primipara—a large scotch woman, aged 39 years. The attending physician saw her in the morning,—very little progress in labor. She complained of severe and peculiar pain in the head. She was bled largely without much relief to the headache. In the afternoon she had a severe convulsion which was repeated three times with short intervals. During the last convulsion a dead child was expelled. I arrived about half an hour after delivery and found the patient breathing stertorously, could not be aroused, pulse slow and full, face much swollen, as were also the lower extremities, bowels constipated, urine said to have been copious. Examination of this fluid, revealed a large amount of albumen and great quantities of waxy casts. Castor oil was administered freely, and its operation was followed by a marked amelioration of the coma. Three days after, I found there had been no return of convulsions, patient still



comatose, but can be aroused sufficiently to answer questions. Advised occasional doses of the jalap powder, with a moderate amount of stimulants. This patient had a tedious convalescence, and after an interval of three months was pale and face was somewhat swollen.

I regard this case as an example of the large white kidney, from which complete recovery was delayed for several months.

I give the particulars of another case, in which disease of the kidney was well marked but was not attended with convulsions.

November 20th, 1864, saw in consultation, Mrs. D., aged about forty years, the mother of several children. I learned that after several days of moderate pains, she had been delivered two days previously, of a dead child at about the sixth month of gestation. Since delivery, she had been very restless, complained of severe pain in bowels, distress of stomach and constant vomiting. Pulse 120, small and quick, tongue heavily coated, abdomen much enlarged, hard and presenting distinct fluctuation, very little œdema observable, says she cannot sleep on account of severe pain in the lower part of the bowels. She has been constipated for some time, does not know when she passed urine, has a constant desire to micturate, but all efforts thus far have been unsuccessful. The attending physician regarding the case as one of puerperal peritonitis, had directed fomentations to the bowels and administered opium in two grain doses every two hours, without affording any relief. This course had been pursued twenty-four hours without inducing sleep. The patient states that she had not slept since the birth of the child. A catheter was introduced, and about an ounce of urine drawn off, without, however, affording any relief to the desire to micturate. Regarding the case as one of uræmic intoxication, I advised the discontinuance of the opium, and that croton oil should be given until free purgation had been secured.

December 1st. Urine examined; heat and nitric acid converted almost the whole mass into a jelly, composed of albumen. Casts were abundant. Found patient much relieved by the operation of oil—slept some during the night—pulse slower, small and feeble—abdomen very much enlarged, somewhat tender, with decided fluctuation—vomiting had almost entirely ceased. Advised a diuretic medicine of wine of colchicum and tincture of digitalis.

Saw this patient again, after the lapse of about a week, and found her much improved, but unable to take food—pulse rapid and small—tongue red and dry, and with quite a large quantity of

fluid in the peritoneal sac. Advised full and frequently repeated doses of the jalap powder. I learned afterward, from the attending physician, that this woman was much relieved by the free purgation following the powder; that urine gradually increased in quantity, and that convalescence, though slow, was attended with no unpleasant symptoms. After some months, I found her restored to her ordinary health.

As may be inferred from the foregoing cases, that the treatment of puerperal convulsions must depend largely upon the prompt and efficient administration of drastic cathartics. Little confidence, in my opinion, can be placed in the action of diuretics, the kidneys being in no condition to respond to the action of this class of stimulants. Purgations are generally well borne, and marked relief from the kind of toxæmia under consideration, is pretty certain to follow their operation. The compound julap powder, I think, is one of the best remedies of this class we possess. Its bulk and nauseous taste are serious objections to its frequent administration; the addition of ginger, or the leaves of the spearmint, will sometimes obviate this difficulty.

Where the occurrence of eclampsia, as is frequently the case, marks our first introduction to the patient, the treatment must be entered upon promptly and efficiently. Removal of the child, when it can be effected readily, and without too much violence, is our first duty.

Venesection, free and often repeated, if the convulsions were continued, was the rule laid down by writers for a long period. If the patient is plethoric, bleeding may prove of great service. But in a large proportion of cases falling under my observation, I should regard the practice as decidedly injurious, tending to prolong convalescence. In the anæmic this practice is certainly inadmissible.

The free use of chloroform is unquestionably the most important improvement in the treatment of eclampsia of modern times. Its administration enables us to control effectually the convulsions, and gives opportunity for the use of other means designed to remove the cause. Its prompt and sustained effect, I believe, has never been followed by serious results. In serous effusion, or true apoplexy, it will, I think, fail of arresting the convulsions. Its use, however, may be of great service in forming a correct diagnosis.

Croton oil, being easily administered and rapid in its action, is our most reliable agent, under the circumstances, in removing the

cause of eclampsia. Its action can be assisted by the use of stimulating enemata. After free purgation has been secured, the free use of opium, combined in some cases with colchicum, will prove of great value.

Bromide of potassium has recently been recommended as a valuable remedy. I have no doubt, in those cases where opiates are not well borne, this will prove of great benefit.

I have thus briefly stated, what seem to me to be the principal indications in the treatment of albuminuria, in its relations to the puerperal condition. Other remedies will undoubtedly occur to the minds of those present, which perhaps are more valuable than those mentioned. My own experience has led me to rely mainly upon the active and free use of the articles above alluded to.

## ARTICLE VIII.

# CASE OF ICHTHYOSIS SAURIDERMA SPINOSUM.

(Exhibited to the Convention, May 23th, 1868.)

BY HENRY PIERPONT, M. D., OF NEW HAVEN.

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The patient, M. S., a girl 10 years of age came under my observation in April last, affected with Ichthyosis, so extensive and remarkable that I have thought it of sufficient interest to present to the consideration of the profession. It being of unusual interest by reason of the extent of the disease as well as the length of the spines, the longest of which are on the knees, elbows and thighs and strongly represent the porcupine appearances. On the knees, the spines measure full three-eighths of an inch in length, one-fourth in breadth, and one-eighth to three-sixteenths in thickness. On the legs and dorsal portion of the feet, the spines are broad and flat, resembling a very thick scale. On the body they are firm and elevated about a sixteenth of an inch, not uniform; some patches very dense and others sparse.

It extends over the legs, arms and greater portion of the body. The surface over the spinal column upwards, from the lower dorsal vertebra, and about the upper three fifths of the chest anteriorly are unaffected, except that the nipples and axillary portion of the pectoral muscles and shoulders are covered, the former thickly, and the fingers, from the knuckles down, are free from the spines. The palms of the hands, soles of the feet (as is usual), are also free.

She is in good health otherwise, and suffers only in cold weather from the cracking of the skin between the spines, causing stiffness and soreness, making flexion and extension of the limbs painful, impairing her ability for walking or getting about.

Previous to my first visit, the patient's mother stated that her child had a slight roughness of the skin, the *truth* of which the accompanying plate will illustrate. This will also account for my



*Portrait of a young woman, 1902*



not being able to obtain a more full and reliable history of the case previous to her coming under my observation. The mother says that while carrying the child, she had excessive longings for apples and sour milk; and that while in an orchard for the former, she saw the head of a snake in the grass, looking at, and running out its tongue towards her, which frightened her dreadfully, and thus caused the child to be marked. [How seeing the head of a snake should be instrumental in causing a disease of the scabaceous follicles of the skin, is not easily explained to the mind of the writer].

From earliest infancy, there was roughness, which was increased by the application of cold water. At five months old she had a severe attack of jaundice, the entire skin becoming very yellow, which the mother alleges was cured by the administration of three pediculi, three mornings in succession, and the greatest care enjoined that the pediculi must be taken from a stranger. (I suppose a homeopathic remedy, as I have never heard of any other practice using them as a medicinal remedy internally). And that soon after the recovery from the jaundice (whether one or six months, am unable to learn), the ichthyosis commenced on the knees, and was some four years in extending over the legs and thighs, continuing upwards upon the body, on the latter slowly until the past year, since which it has spread rapidly.

Commenced treatment early in June, and some days after the spines began dropping off, whether from the effects of the treatment or wholly from the nature of the disease, I am unable to say; as she has usually shed them in warm weather, to some extent. Though the mother says the skin has never been as smooth when the spines have dropped off before.

July 15th, at time of going to press, the knees and greater portion of the thighs are clean. It is also cleaning off from the elbows. Am unable to learn of its being in the family before. I have reason to believe that both parents were intemperate.

## ARTICLE IX.

# TRUAMATIC LESION OF THE KNEE JOINT.

Reported at the New London County Meeting, April, 1882.

BY E. FRANKLIN COATES, M. D.

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By permission I will introduce a case of special interest to every practitioner of medicine as well as to the professed surgeon.

February 15th, 1866, I was called to see a young man aged twenty-five years who had been a soldier in the 21st Regiment Conn. Vol. While in battle at the taking of Fort Harrison, (Chapin's Farm), Va., Sept. 28th, 1864, he was wounded in the upper part of the tibia of the right leg by a shell which rendered him unfit for service for four months. From this injury he had perfectly recovered, but with an escar of the size of two by three inches. He had been discharged from the army in June, 1865. I found him with another wound near the first. He had been an employee in a saw-mill connected with a ship yard, and while engaged with others in rolling a ship-knee upon the bed of the mill to be sawed, the assistant let go his hold, and in the rolling fall of the timber, his full flexed knee was caught between the timber above, and the bed of the mill below.

The edge of the saw mill bed was covered with heavy iron plate, and the timber striking on the lower part of the femur, brought the upper part of the tibia against the iron plate with such violence as to tear through its external covering, split off its upper part and open into the knee joint, in fact, cutting the leg at the knee half through. It had also wounded the femur, removing a piece from the spongy texture of the condyee of the size of a large filbert.



This was his condition when I found him two hours after the accident. I turned up the patella with its ligament attached to the broken fragment of the tibia, and with the knee half-flexed I could see two-thirds of the articular surface of both bones that form the joint. I considered what it was best to do. Amputation was the rule. The young man was poor, without friends that were able and willing to support him, and he then temperate and healthy. Amputation above the joint was not wholly free from danger, and I concluded that as he was dependant upon himself for support, that it was best to wait and see what could be done before advising its removal. I dissected away the fragments of bone and brought the parts together and secured them first by five sutures. Then I applied a long strips of adhesive plaster between the stitches and secured them well. By appropriate bandaging, the parts were managed so as to be kept together for three days. Then I removed the plasters and re-applied only one long strap where the wound gaped the most, leaving the remainder secured only by the sutures, (about one and a half inches apart) so as to allow the free escape of all puriform secretions. The single adhesive strap was re-applied daily over the part which presented the greatest opening until ulceration forced the stitches to give up their hold. Then more straps were applied, but never in sufficient number to interfere in the least, with the free escape of matter.

The leg was supported on Liston's double inclined plane, without any bandage that could in the least interfere with the free circulation of the blood. All progressed well for ten days, when the leg somehow got moved on the edge of the splint while the patient was asleep so as slightly to twist the knee. This seemed to be the commencement of a new inflammation. The knee swelled badly. I ordered tepid water, weak spirit lotions, charcoal and yeast poultices; and in four or five days, a small quantity of thick pus had formed each side of the joint, which was let out with a lancet. At about this time, I was truly sorry I had not advised amputation at the first. I had not had council in the case, but in two or three days more before the daily round to my patient, I determined to advise a neighboring surgeon to be called, to consult regarding amputation, even then more than two weeks after the accident, being liable to censure because the leg was not removed at the first. But on seeing the case, hope comforted me; the inflammation was evidently subsiding. From this time with persevering efforts, the case progressed favorably, so that in two weeks more, the inflam-

mation was gone, the wound had healed and I was willing to show my patient to any one who was not afraid to look at the scar.

I kept the leg slightly flexed upon the splint for nearly another month, when I unexpectedly found some motion at the joint. It was then moved each day as much as possible without giving so much pain as to endanger inflammation, and the persevering efforts finally resulted in the perfect use of the joint. He was confined to the house about three months, getting out at first upon crutches. In six months he had abandoned all support except one cane, and in one year this was also laid aside. In eight months more, he had been known to walk six miles at one time without serious inconvenience.

This may be called bold or timid surgery in trying to save the leg, but I was actuated by no other than the scripture rule "do unto others as ye would have them do to you in like circumstances," and the result is favorable. If I had been governed by hospital experience either civil or military, this young man (if he had lived) would now be enjoying an artificial pedestal, instead of the leg which his Creator gave him, and which is now preserved for his use. In private practice we do not have so much gangrene to fear as in the hospital, and may often "hope on in the former, where hope would be lost in the latter."

This wound has not given him much trouble since it healed, but slight necrosis has attacked the bone at the wound which he previously received at Fort Harrison in 1864, and an ulcer now takes the place of the scar and gives him some trouble.

In the progress of a case it is often easier to say what should have been done than what is to be done, for effects apparent when they come, are not always so apparent before hand, and often in trying to save a limb, we are obliged to risk the life, and, if the case prove fatal, subject ourselves to censure. The great business of the surgeon is to save both life and limb if possible, and the lesson of this case is worthy of our serious study, for in it, the powers of nature are not only shown, but also the action of the remedial agents useful to insure safe results.

MEMOIR OF  
DATUS WILLIAMS, M. D.

Read before the Convention May 28th, 1868.

BY E. B. NYE, M.D.

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DATUS WILLIAMS, M. D., the subject of this sketch, was born in the town of Norwich, Conn., Feb. 25, 1793. He was one of nine children, being a descendant in the seventh generation from Robert Williams, of Roxbury, Mass.

He was the son of a farmer, and in early life enjoyed such educational privileges as were usually accorded to youths similarly circumstanced at that time; that is, the privilege of attending the district school in the winter, the rest of the year working on the farm. While thus employed in assisting his father on the farm pertaining to what is known as the Bacon Academy, in Colchester, Conn., he seems to have formed the purpose to prepare himself for the practice of medicine. With no resources but his own exertions, which would, to many, have offered insurmountable obstacles to the accomplishment of such a purpose, we find him soon after teaching school in New Jersey. While thus engaged in supplying himself with the necessary means, he devoted himself to reading and study, preparatory to that of medicine, and in the year 1820 became a pupil of the late Dr. Osgood of Lebanon, and subsequently of Dr. Cogswell of Hartford, Conn.

He attended Lectures at the Yale Medical School, and while there was a chum of the late Professor Charles Hooker. He received a license to practice, from Yale College, in 1823, and the same year commenced practice in that part of East Haddam known as Millington. In 1824 he married Miss Clarissa M. Peck, of that place. He continued in M. until 1835, when a vacancy occurring in the western and more populous portion of the town, he moved thither, where he continued in active and successful practice, except when prevented by ill health, up to the time of his death, which occurred Nov. 4, 1867, in the seventy-fifth year of his age. For two years previously he had suffered severely from rheuma-

tism, as well as from asthma, a disease to which his family has always been subject, but on the morning of his death he had seemed to be better than for some days before. A few minutes after having passed into the yard, he was discovered by his wife lying upon the ground, as she supposed, in a fit. Dr. H. E. Williams, a son of the deceased, who was at home at the time, writes—"I immediately ran to him, and raised him, but life was already extinct,—he having died evidently without a struggle, though yet rigid in apparently the spasm of an apoplectic fit." As to the immediate cause of death, he suggests farther, "either metastatic rheumatism, or, perhaps, valvular ossification."

Thus suddenly has passed from the stage of life, another of our number. He leaves two sons, and a widow in feeble health; thus bereft of the partner of her joys and sorrows, to complete the journey of life. The elder son graduated at the N. Y. University Medical College, in 1847, and practiced his profession in the city of New York until 1864, when he entered the service of his country as Ass't. Surgeon of Volunteers. He is now in impaired health, from diseases contracted while in the service. The younger son has been for some years connected with, and is at present an officer in one of the N. Y. City Banks. A third, and the youngest child, a son, died in infancy.

In the death of Dr. Williams, a vacancy has been created in our ranks, and in community, which cannot be readily filled. He possessed some qualities which constitute the good physician, in more than a common degree. At the bedside of the sick he was calm, self-possessed, cheerful, hopeful, and so benefitted his patients by inspiring them with hope, as well as by his prescriptions. If in diseases of a mild type he trusted more than some to the *vis medicatrix naturæ*, he had good authority for doing so; while he was prompt and not sparing with potent remedies, in cases demanding their use. Practicing in a region of rough and hilly roads, a considerable portion of it but sparsely populated, and frequently called upon long and fatiguing rides, very few, it is believed, have more promptly or faithfully responded to the summons of the sick, undeterred by storm, darkness, or little prospect of other compensation than a consciousness of having ministered to the relief of suffering humanity. Imbued with much of the *esprit de corps*, he was jealous of the honor of the profession, and showed little favor to quacks and their abettors. He usually attended and enjoyed meetings of his professional brethren. By a recommenda-

tion of the Connecticut Medical Society, he received the honorary degree of Doctor of Medicine, from Yale College, in 1843. In 1853, he represented the Middlesex County Medical Society, at a meeting of the American Medical Association, and repeatedly attended the State Convention in the same capacity. He appreciated and improved the privileges of citizenship, and faithfully discharged its duties. He took an interest in whatever pertained to human progress, whether local or general, and kept himself posted therein. In the family and social circle he was uniformly kind, social and genial.

Dr. Williams, moreover, thought and acted with reference to the future as well as the present life. In 1839, he became, and continued to the time of his death, a communicant of the First Congregational Church in East Haddam.

From the intimate and confidential relations usually existing between the physician and the families he enters, and from the nearly half century that the Doctor had practiced in substantially the same field, it was to have been expected that his death would be the severance of ties both numerous and tender. That this was so, was evinced in many ways, as well as by the large concourse of sincere mourners who gathered around his grave.

BIOGRAPHICAL SKETCH OF  
FRANK N. H. YOUNG, M. D.

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DR. YOUNG was born in Clifton, England, August, 1831. His father was a Surgeon in the British army, and was with the Duke of Wellington in his campaigns. From childhood, he (the son) was a great reader, insatiable in his desire for books; and so retentive was his memory, that he rarely forgot anything which he had read. Fond of the languages, he is reputed to have mastered Xenophon when but ten years old, reading it with his mother.

He seemed to inherit from his father a love for the study of Medicine; but his father's early death changed the course of his life. Through the influence of Dr. Locock, a friend of the family, he obtained a position in the Navy, was graduated at Portsmouth Naval College, and entered into active service. While thus engaged, he visited nearly every part of the world. His last voyage was to the Arctic Seas, having joined an expedition in search of Sir John Franklin. On his return he gave up his commission and left the Navy.

Having decided to study Medicine, with the intention of becoming a Medical Missionary, various circumstances led him to qualify himself in the United States. He graduated at the Berkshire Medical Institution, Pittsfield, in the year 1858, where he continued, as Demonstrator of Anatomy, till 1860.

In June, 1860, Dr. Young accepted, from the American Board of Missions, an appointment as Physician to the Nestorian Mission, Oroomiah, Persia. While there, he was engaged in an extensive and very laborious practice, but found time for much Missionary work, and sundry literary undertakings. He learned several languages, translated parts of the Bible for the Americans of Persia, wrote a work on Hygiene, for use in the Seminary at Oroomiah, and another very useful one on nursing. He also instructed a young Persian in Medicine, and sent him to this country to be further educated.

At the end of three years, these severe labors proved too much

for his shattered constitution. A hæmorrhage from the lungs left him so feeble, that he was obliged unwillingly to give up his Missionary work. On his way home, he spent some time in professional study in the cities of Europe, principally in Vienna, London and Paris.

In February, 1863, Dr. Young commenced practice in Danbury, Fairfield Co., and soon became a member of the Connecticut Medical Society. Though his health improved, he was yet obliged to contend (as he did with wonderful resolution) against feebleness and disease. He loved his profession, and was untiring in his devotion to it.

In the fall of 1867, he consulted two physicians of New York. They confirmed his apprehensions, and his disease at that time was pronounced Albuminuria. He spoke of it to no one, but continued his practice till two months before his death. About one month previous to this event, he asked the advice of a physician of Danbury, (where he last practiced,) and complained of "blindness, accompanied by great dilatation of the pupil, headache, restlessness, etc." He was at first supposed to have taken belladonna, by mistake for hyoscyamus, the last of which he was accustomed to use for his severe headaches. After a day or two, the diagnosis was corrected, and the patient admitted that he had Albuminuria. Subsequently, he partially recovered his eyesight, but continued to fail, and died in convulsions, March 17, 1868. He was buried in Pittsfield, Mass.

The professional friend, just referred to, writes of Dr. Young as follows:—"He was a skillful physician, well versed in the science of his profession, honorable in his intercourse with his brethren, strictly conscientious in the discharge of his duties to his profession, and a gentleman."

BIOGRAPHICAL SKETCH OF  
S. P. V. R. TEN BROECK, M. D.

BY GEORGE L. BEERS, M. D.

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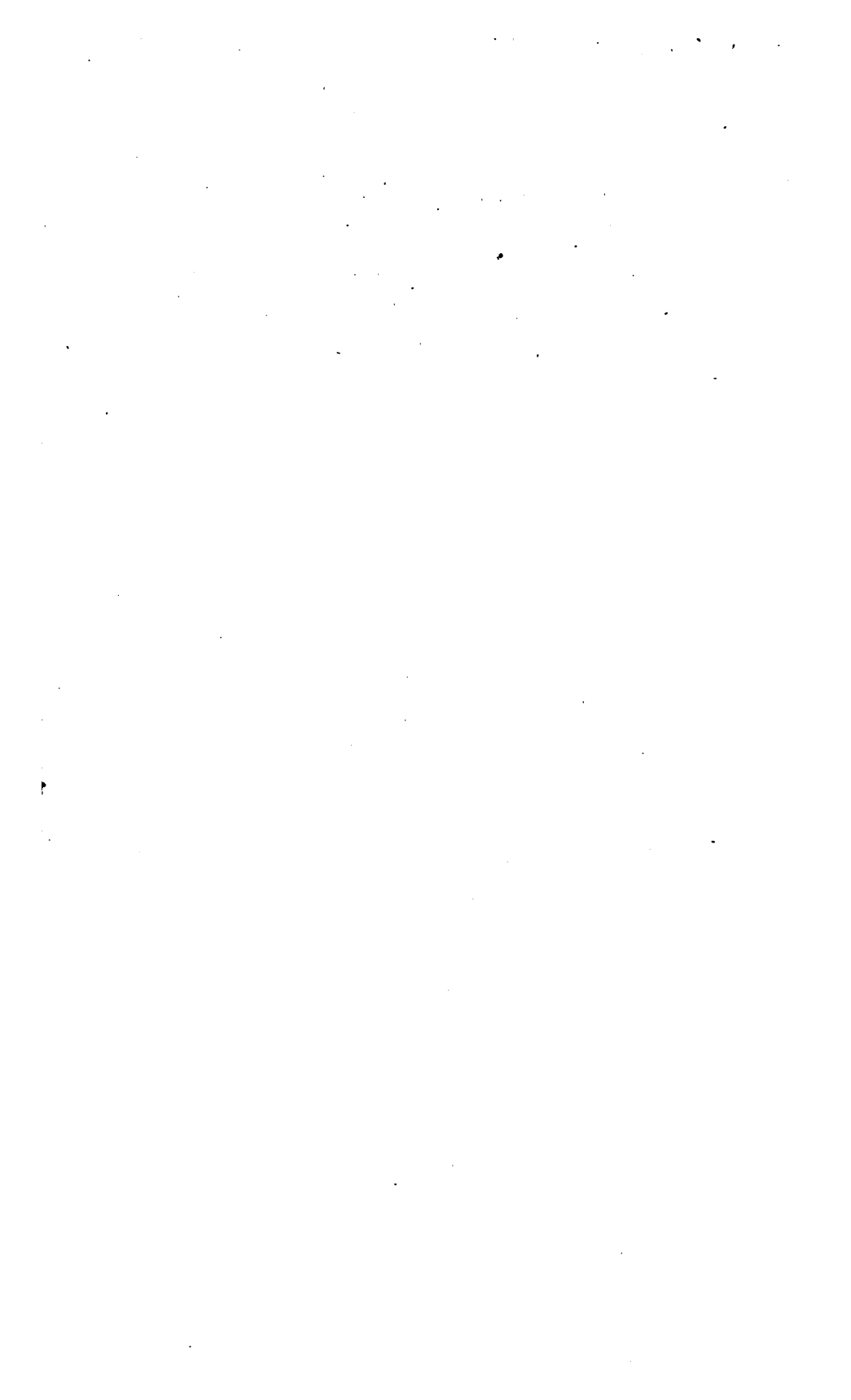
S. P. V. R. TEN BROECK was born Dec. 21, 1802. He studied Medicine with J. Watts, M. D., of New York, graduated at the College of Physicians and Surgeons, in 1825, and engaged for several years in hospital, dispensary and private practice. Afterwards he settled in Fairfield, Conn., where he continued to practice until Aug. 1st, 1866, when he died, of chronic rheumatism and neuralgia. Although Dr. Ten Broeck had been a great sufferer for four years, it was hoped that on the opening of summer his health would improve. He was lively and cheerful, hopeful of himself, had less pain, his appetite improved, and he could ride more easily. He soon found, however, that his physical strength was failing. Nausea set in, so that for days nothing was retained upon his stomach.

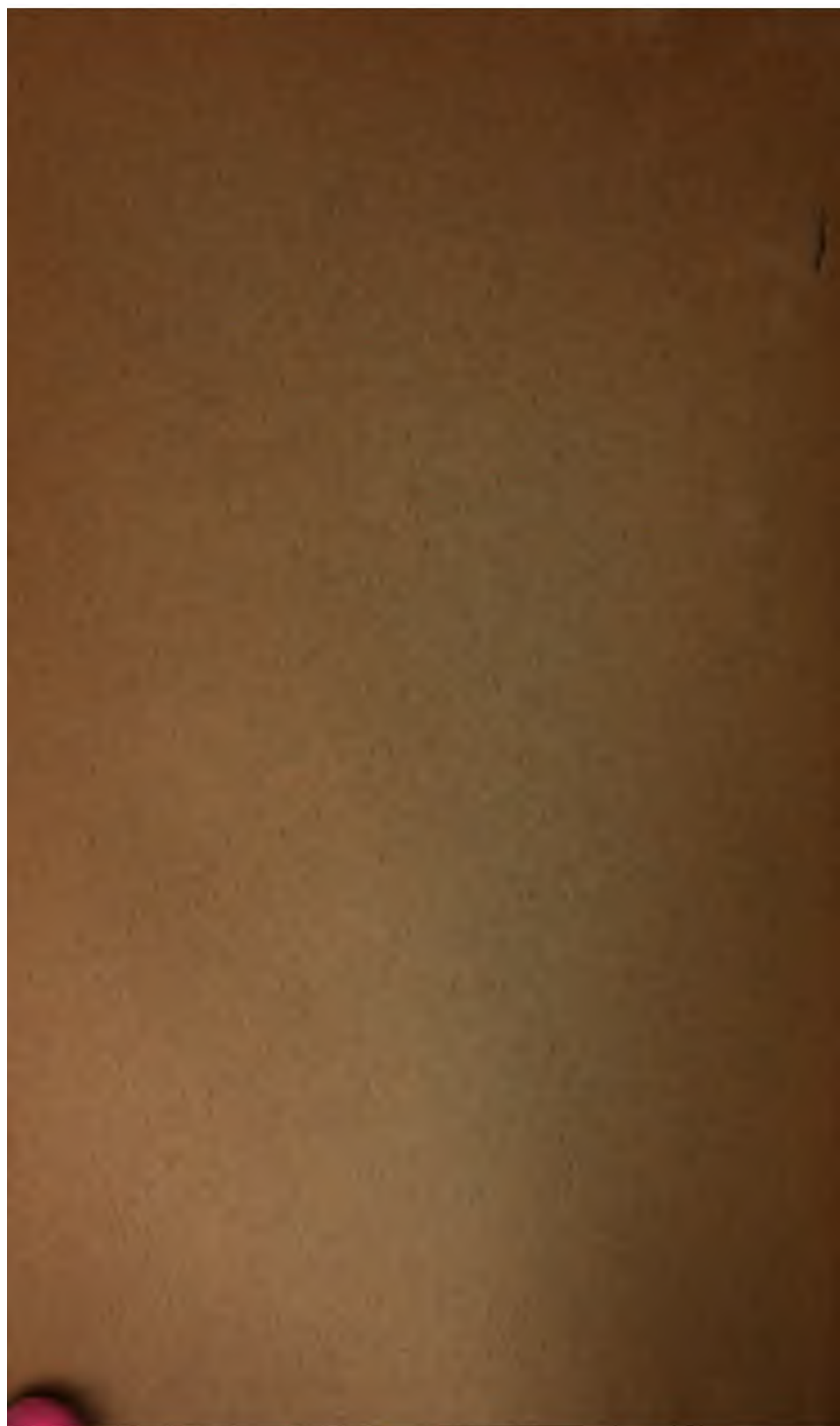
About four weeks before his death he had a severe attack of his old complaint, and he thought he was dying; but he rallied, and spoke of his approach to death with calmness and resignation to the will of God. For a few days he seemed better, and enjoyed the society of his friends. On Wednesday before his death he was worse, and when physicians were called he was beyond the reach of human aid. At 2 o'clock, Aug. 1, 1866, without a struggle, his spirit returned to God who gave it.

He was a gentleman, in the noblest sense of the word; modest, yet gifted with high abilities; generous to a fault; steadfast in his attachment to friends, and true to his Church. Few have more deeply mourned over his faults than himself.

His funeral was largely attended, at the Episcopal Church, by the community, who appreciated his worth as a skillful physician, a true gentleman, and a sincere Christian. It was a touching sight, as the crowds of the poor, whom he had aided in sickness or want, on passing his coffin, one by one, bent low and kissed the hand which could aid them no more.







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